Gary is an avid hiker. He tracks his hikes meticulously, paying close attention to small details like topography. During his last hike he took exactly n steps. For every step he took, he noted if it was an *uphill*, U, or a *downhill*, D step. Gary's hikes 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 Gary's sequence of *up* and *down* steps during his last hike, find and print the number of *valleys* he walked through.

For example, if Gary's path is $s = [DDUUUUDD]$, he first enters a valley 2 units deep. Then he climbs out an up onto a mountain 2 units high. Finally, he returns to sea level and ends his hike.

Function Description

Complete the *countingValleys* function in the editor below. It must return an integer that denotes the number of valleys Gary traversed.

countingValleys has the following parameter(s):

- *n*: the number of steps Gary takes
- *s*: a string describing his path

Input Format

The first line contains an integer n, the number of steps in Gary's hike.
The second line contains a single string s, of n characters that describe his path.

Constraints

- $2 \leq n \leq 10^6$
- $s[i] \in \{UD\}$

Output Format

Print a single integer that denotes the number of valleys Gary walked through during his hike.

Sample Input

```
8
UDDDUDUU
```

Sample Output

```
1
```

Explanation

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

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

He enters and leaves one valley.