Mock CCC '22 Contest 1 J2 - Biking and Hiking

Time limit: 0.25s **Memory limit:** 256M

Bob is biking on a trail with N sections. This trail has uphills, downhills, and flat sections, denoted by `U`, `D`, and `F`, respectively. He starts with a speed of K, and will bike through the entire trail. When **biking**:

- On uphill sections, Bob will lose 1 unit of speed.
- On downhill sections, Bob will gain 1 unit of speed.
- On flat sections, Bob's speed will not change.

If Bob's speed becomes 0, he will have to get off his bike and walk **until** he reaches either a downhill section or the end of the trail. His speed cannot be negative.

How many total sections will Bob have to walk on?

Constraints

$1 \leq N, K \leq 10^4$

Input Specification

The first line will contain two space-separated integers N and K.

The second and final line will contain a string of length N with only the characters `U`, `D`, and `F`.

Output Specification

Output one integer on one line, the number of sections Bob will have to walk on.

Sample Input

```
11 1
FUDDDUDUUUF
```

Sample Output

```
3
```

Explanation

Bob has to walk the second section and from the tenth section to the end of the trail, as in these sections, his speed is 0.