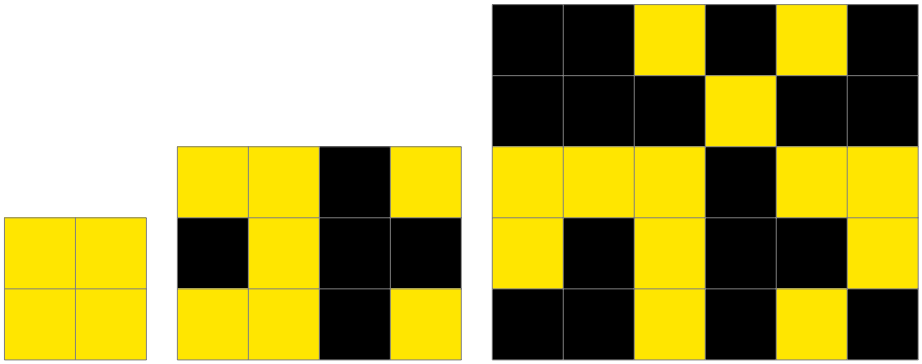
DMOPC '20 Contest 5 P4 - Slacking Off

Time limit: 2.0s **Memory limit:** 256M

After finishing one task at work, Bob is getting bored. So he decides to count some patterns in the N-pixel-high by M-pixel-wide computer screen his employer gave him. Each pixel is either yellow (lit) or black (unlit).

Bob thinks a rectangle of pixels, with both dimensions at least 2, is **ugly** if its first and last rows are identical and its first and last columns are identical. *(Note: this definition is the same as the one in Problem 5.)* For example, the following rectangles are ugly:



Please help Bob count the number of ugly sub-rectangles in the $N \times M$ screen!

Constraints

$2 \leq N, M$

$4 \leq N \times M \leq 200\,000$

Subtask 1 [10%]

$4 \leq N \times M \leq 500$

Subtask 2 [20%]

$4 \leq N \times M \leq 8000$

Subtask 3 [70%]

No additional constraints.

Input Specification

The first line contains two space-separated integers, N and M.
The next N lines each contain a string of M characters—`Y` for yellow and `B` for black—representing the colours of the pixels on the screen.

Output Specification

Output one integer, the number of ugly sub-rectangles.

Sample Input

```
3 3
BYB
YYY
BYB
```

Sample Output

```
1
```