

# FARMER

Oldie is a potato farmer, he has a  $N \times M$  (grid) size field with him (say A). Each block of the field has a mark whether it has been watered recently or not. Oldie has marked the crop that has been watered as 'X' others as '.'.

Now he wonders, if he looks at all sub-rectangles in the field that contain only watered crops, what will be the area of the largest one. Help Oldie!

Each block of Oldie's farm is a  $1 \times 1$  square.

Note: A sub-rectangle may be of zero size or may span the entire farm.

Constraints:

$1 \leq N, M \leq 2000$

$A[i][j] = '.' \text{ or } 'X'$

Time Limit: 1 sec

Memory Limit: 256 Mb

Input:

First line contains 2 numbers N, M. They denote the measurements of the farm.

Next N lines, each contains a M length string. They describe the farm.

Output:

Single number denoting the requires area.

Sample Input:

```
4 4
.XX.
XXXX
XXXX
XX..
```

Sample Output:

```
8
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