PROBLEM #7:

Alien Invasion

Description:

UFO's are landing in Rolla!, People are running around like headless chickens. However, you notice an interesting programming problem.
The alien ships come in many sizes but they are all square when seen from below, and so they need a flat square open zone to land. The MS&T campus is not known to have many such open areas, but still, you will like to know which is the size of the largest ship that could land. Getting your hands in some Satellite data, you can turn that into a grid where a '**.**' represent empty space and a '**X**' represent an obstacle like a building or a tree. The satellite data then can be seen as an **NxM** matrix of all **'.'**s and **'X'**s.

Find the size of the largest Alien ship that can land.

Input:

There will be several test cases in the input. Each test case will begin with two integers, **N** and **M (1 ≤ N,M ≤ 1,000)** indicating the number of rows and columns of the matrix. The next **N** lines will each contain **M** characters, guaranteed to be either **'.'** or **'X'**. The input will end with a line with two 0s.

Output:

For each test case, print a single integer, indicating the width (and height) of the largest spaceship that can land, or **'NO'** if no landing is possible. Print no extra spaces, and do not print any blank lines between answers.

Sample:

(Shading is used to highlight the different test cases)

Input	Output
4 5 X.X..	3 3

..... X...X ..... 3 4 .... 6 6 XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX XXXXXX 0 0	NO