

Fencing

Input File: fence.txt

You have been commissioned to build a fence around a community of houses. The three stipulations are: the fence should be small as possible, it should be rectangular, and it should enclose all houses.

Input:

The first line contains an integer N. There are N following cases. Each case will first consist of a line with 2 integers; the first defines the number of rows of the inputted map, and the second defines number of columns. The inputted map will consist of the . and s characters: the . represents an empty space. The x represents a house. Each character map will have at least 1, x.

Output:

For each case, output the number of rows and columns of the smallest rectangle that encloses all of the houses. The number of rows should be first, then the number of columns, separated by a space.

Example Input:

```
3
4 6
.....
.x.x..
...X.
..XX..
8 8
.....
...XX...
..X...X.
.....X..
.X.XX...
..XX.X..
...X....
.....
1 1
x
```

Example Output:

3 4

6 6

1 1