

Input: standard input
Output: standard output

You are a great conqueror occupying land after land to save humanity. Your motto is to invade enemy territories to help out the oppressed mass people of their lands. But there are dozens of such hostile cities. You are at a loss where to start from. You have come up with a plan which is to start from the biggest land area on the map. A map is a 2D Grid consisting of only dots ('.') and hashes ('#'). Here dots represent water surface and hashes represent the land zone. If a cell contains a hash, all of its adjacent cells containing hashes are parts of the same territory. If (X, Y) is a cell containing hash in it, its adjacent cells are (X+1, Y), (X-1, Y), (X, Y+1), and (X, Y-1). You may assume that all the cells outside of the grid contain water. Now, you want to know how many cells the biggest territory is comprised of.

Input Format

The first line of input is an integer T ($T \leq 10$) denoting the number of test cases. Each test case starts with two integers N and M ($1 \leq N, M \leq 500$). Each of the next N lines of a test case contains M characters containing only dots or hashes.

Constraints

Empty

Output Format

For each test case, print in a single line how many cells the biggest territory consists of.

Sample Input 0

```
2
4 3
.#.
##.
..#
..#
4 4
..#.
...#
.#..
.#..
```

Sample Output 0

```
3
2
```