



1008. Oil Deposits

Total: 174 Accepted: 54

Description

Time Limit: 1sec Memory Limit: 256MB

The GeoSurvComp geologic survey company is responsible for detecting underground oil deposits. GeoSurvComp works with one large rectangular region of land at a time, and creates a grid that divides the land into numerous square plots. It then analyzes each plot separately, using sensing equipment to determine whether or not the plot contains oil.

A plot containing oil is called a pocket. If two pockets are adjacent, then they are part of the same oil deposit. Oil deposits can be quite large and may contain numerous pockets. Your job is to determine how many different oil deposits are contained in a grid.

Input

There are multiple test cases. The first line contains an integer T , indicating the number of test cases.

Each test case begins with a line containing m and n , the number of rows and columns in the grid, separated by a single space. ($0 < m \leq 100$ and $0 < n \leq 100$). Following this are m lines of n characters each (not counting the end-of-line characters). Each character corresponds to one plot, and is either `*`, representing the absence of oil, or `@`, representing an oil pocket.

Output

For each test case, output the number of distinct oil deposits. Two different pockets are part of the same oil deposit if they are adjacent horizontally, vertically, or diagonally.

Sample Input

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```
4
1 1
*
3 5
*@*@*
**@**
*@*@*
1 8
@@*****@*
5 5
****@
*@@*@
*@**@
@@@*@
@@**@
```

Sample Output

[Copy](#)

```
0
1
2
2
```

Problem Source: Graph Algorithms

Submit

Sicily Online Judge System(Rev 20120716-961)

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