

# How many Islands

You are given a simple map of an archipelago. Can you determine how many islands it shows?

The map consists of grid squares with characters, where '#' indicates land and '.' indicates water. Two land squares belong to the same island if they are neighbouring grid squares, which means their x coordinates and y coordinates differ by at most 1.

## Input

The first line of the input contains a number  $T \leq 20$  which indicates the number of test cases to follow.

Each test case starts with a line containing two numbers  $n$  and  $m$  ( $1 \leq n, m \leq 200$ ), the number of rows and the number of columns of the grid, respectively. The following  $n$  lines contain  $m$  characters each and describe the map to be processed. You may assume that the map contains only characters '#' and '.', and that the border of the map consists only of water (character '.').

## Output

For each test case print in a line the number of islands shown on the corresponding map in the input.

## Example

### Input:

```
2
1 1
.
6 4
....
..#.
.#..
....
.###
....
```

### Output:

```
0
2
```