Problem 2. Cheese cakes

Problem Statement

We have a grid map with size of h by w.
Each grid of the map contains value of 0 or 1 that represents a cheese piece is in the grid or not.
Our goal is to find all cheese cakes in the grid map.
A cheese cake is defined as the 'set of connected cheese pieces'. In other word, if two cheese pieces are adjacent to each other, then the pieces are parts of same cheese cake.
We define two grids are adjacent, if and only if two grids share at least a corner.
Write a program that find all cheese cakes in the given grid map.

Input Statement

First line contains t which is the number of test cases.
At the first line of each test case contains the size of map h and w ($1 \leq h, w \leq 1000$).
Each of next n lines contains w integers that represents a cheese piece is in the grid or not.

Output Statement

Print the number of cheese cakes in a line for each test case.

Input Example

```
2
3 3
1 0 1
0 0 0
1 0 1
3 3
1 0 1
0 1 0
1 0 1
```

Output Example

```
4
1
```