# Ponds

Time limit: 2 sec.
Memory limit: 512MB

## Description

It rained so much last night, that some ponds are created in the field! You suddenly wanted to count the number of ponds that were created.

The field is represented as cells of size n*m.

| | | | | | |
|---|---|---|---|---|---|
| 0 | 1 | 0 | 1 | 0 | 1 |
| 1 | 1 | 0 | 1 | 1 | 1 |
| 1 | 0 | 1 | 0 | 0 | 0 |
| 0 | 0 | 0 | 0 | 1 | 1 |

**Figure 1) The representation of the field with 4 ponds**

Figure 1 shows an example of a field after a rain. Here, 1 stands for a pond cell, and 0 stands for a field cell. Ponds cells are considered to be in the same pond if they are connected through any of the four directions(up, down, left, right). So in Figure 1, there are 4 ponds.

Given the shape of the field, find the number of ponds that were created.

## Input

The first line of the input contains two integers, n and m. ($1 \leq n,m \leq 1000$)

The next n lines of the input contain the shape of the field, each line containing m numbers (1 for pond cells, and 0 for field cells). *Note that the numbers are not separated by a space.*

It is guaranteed there is at least one pond cell.

## Output

In the first line, print the minimum time needed, as a single integer.

## Sample I/O

| Input(s) | Output(s) |
| --- | --- |
| 4 6<br>010101<br>110111<br>101000<br>000011 | 4 |