Island

Michael the explorer is a famous explorer. He likes to visit as many places as he can in his lifetime. One day, his friend, Wilson the brave, gave him a map of Hyrule, a country consisted of many islands. This map is special and only has the number '0' and '1' printed on it:

0	0	0	0	0
0	1	1	1	0
0	1	1	1	0
0	1	1	1	0
0	0	0	0	1
0	0	0	0	1

The number '0' represents water while the number '1' represents a plot of land. A plot of land is a part of an island and each island consists of some plots of land. Each plot of land forms an island with another plot of land that is adjacent to it (either to the top, bottom, left, or right). In the map above, there are two islands, each with size 9 (3 x 3) and 2 (2 x 1) respectively. All islands in Hyrule are rectangular of size M x N with size of at least 2.

Each island is unique, offering its own native island offerings to tourists. Hence, Michael, being the eager explorer as he always has been, wants to visit every island in Hyrule. However, in order to visit each island, he needs to purchase a ferry ticket. To visit one island, Michael needs one ticket. In general, if Michael wants to visit N islands, he needs N tickets to do so.

Michael wants to purchase the tickets necessary for his trip (i.e. he only wants to visit each island once and wants to visit every island). He does not want to buy more tickets than he needs, nor buy an insufficient number of tickets.

Your job is to help Michael by telling him how many tickets he should buy for his upcoming trip to Hyrule, so that Michael buys the correct number of tickets, no more no less.

Input

The first line of the input consists of two integers, **R** and **C** (1 <= **R, C** <= 100), separated by a single space, indicating the size of Hyrule. **R** lines follow. In each line, there are **C** numbers separated by a single space, each being a '0' or '1', representing a cell of water or land respectively.

Output

Print the number of tickets Michael needs to buy for his trip.

Sample Input	Sample Output
6 5 0 0 0 0 0 0 1 1 1 0 0 1 1 1 0 0 1 1 1 0 0 0 0 0 1 0 0 0 0 1	2

Explanation

The map above can be represented in the following grid:

0	0	0	0	0
0	1	1	1	0
0	1	1	1	0
0	1	1	1	0
0	0	0	0	1
0	0	0	0	1

The first island is of size 9 (3 x 3), starting at (2,2) until (4,4). The second island is of size 2 (2 x 1), starting at (5,6) until (6,6). Note that (M,N) means row M, column N of the above grid, with the top-left-hand corner of the grid being (1,1).

The first island is considered a different island from the second island since there are no plots of land from the first island that is adjacent to any plot of land from the second island.

Since there are two islands in Hyrule based on the given map, Michael needs 2 (two) tickets for his upcoming trip to Hyrule.

Clarification

These are not valid maps of Hyrule:

0	0	0	0	0
0	1	1	1	0
0	1	1	1	0
0	1	1	1	1
0	0	0	0	1
0	0	0	0	1

This map consists of one island. However, its shape is not rectangular. All islands in Hyrule are rectangular of size M x N

0	0	0	0	0
0	1	1	1	0
0	1	1	1	0
0	1	1	1	0
0	0	0	0	0
0	0	0	0	1

This map consists of two islands. However, the size of the second island (the one on the bottom-right corner) is 1. All islands in Hyrule have a size of at least 2.