

Connected Cells in a Grid

Consider a matrix where each cell contains either a **0** or a **1**. Any cell containing a **1** is called a *filled* cell. Two cells are said to be *connected* if they are adjacent to each other horizontally, vertically, or diagonally. In the following grid, all cells marked **x** are connected to the cell marked **y**.

```
xxx
xyx
xxx
```

If one or more filled cells are also connected, they form a *region*. Note that each cell in a region is connected to zero or more cells in the region but is not necessarily directly connected to all the other cells in the region.

Given an $n \times m$ matrix, find and print the number of cells in the largest *region* in the matrix. Note that there may be more than one region in the matrix.

For example, there are two regions in the following 3×3 matrix. The larger region at the top left contains **3** cells. The smaller one at the bottom right contains **1**.

```
110
100
001
```

Function Description

Complete the *connectedCell* function in the editor below.

connectedCell has the following parameter(s):

- *int matrix[n][m]*: *matrix[i]* represents the i^{th} row of the matrix

Returns

- *int*: the area of the largest region

Input Format

The first line contains an integer *n*, the number of rows in the matrix.
The second line contains an integer *m*, the number of columns in the matrix.
Each of the next *n* lines contains *m* space-separated integers *matrix[i][j]*.

Constraints

- $0 < n, m < 10$

Sample Input

STDIN	Function
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```
4          n = 4
4          m = 4
1 1 0 0    grid = [[1, 1, 1, 0], [0, 1, 1, 0], [0, 0, 1, 0], [1, 0, 0, 0]]
0 1 1 0
0 0 1 0
1 0 0 0
```

Sample Output

5

Explanation

The diagram below depicts two regions of the matrix. Connected regions are filled with X or Y. Zeros are replaced with dots for clarity.

```
X X . .
. X X .
. . X .
Y . . .
```

The larger region has **5** cells, marked **X**.