

## Number of Provinces

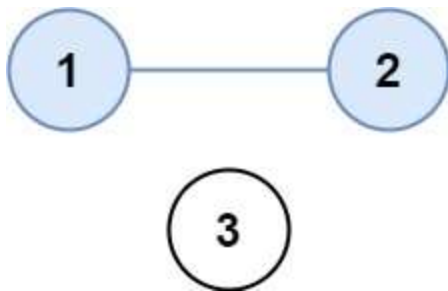
There are  $n$  cities. Some of them are connected, while some are not. If city  $a$  is connected directly with city  $b$ , and city  $b$  is connected directly with city  $c$ , then city  $a$  is connected indirectly with city  $c$ .

A province is a group of directly or indirectly connected cities and no other cities outside of the group.

You are given an  $n \times n$  matrix `isConnected` where `isConnected[i][j] = 1` if the  $i^{\text{th}}$  city and the  $j^{\text{th}}$  city are directly connected, and `isConnected[i][j] = 0` otherwise.

Return *the total number of provinces*.

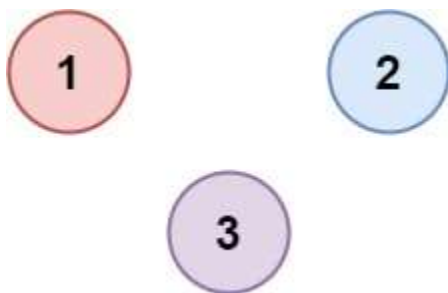
Example 1:



Input: `isConnected = [[1,1,0],[1,1,0],[0,0,1]]`

Output: 2

Example 2:



Input: `isConnected = [[1,0,0],[0,1,0],[0,0,1]]`

Output: 3

Constraints:

- $1 \leq n \leq 200$

- `n == isConnected.length`
- `n == isConnected[i].length`
- `isConnected[i][j]` is 1 or 0.
- `isConnected[i][i] == 1`
- `isConnected[i][j] == isConnected[j][i]`