547. Number of Provinces

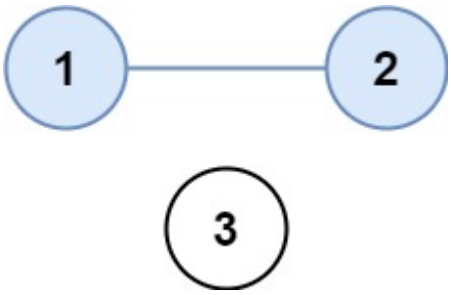
There are `n` cities. Some of them are connected, while some are not. If city `a` is connected directly with city `b`, and city `b` is connected directly with city `c`, then city `a` is connected indirectly with city `c`.

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

You are given an `n x n` matrix `isConnected` where `isConnected[i][j] = 1` if the `ith` city and the `jth` city are directly connected, and `isConnected[i][j] = 0` otherwise.

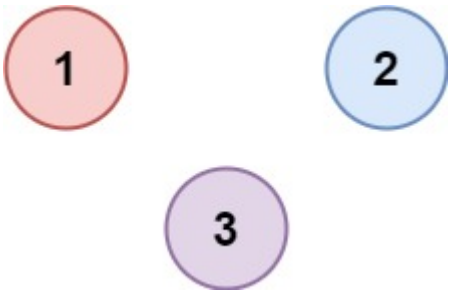
Return *the total number of provinces*.

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 <= n <= 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]````Python
  def findCircleNum(self, isConnected: List[List[int]]) -> int:
  vertices = {}
  for i in range(len(isConnected)):
  vertices[i+1] = []
  for i in range(len(isConnected)):
  for j in range(len(isConnected)):
  if isConnected[i][j]==1 and i!=j:
  vertices[i+1].append(j+1)
  visited = [False]*(len(isConnected)+1)
  comps = []
  for key in vertices.keys():
  comp = []
  if visited[key]==False:
  self.dfs(visited,vertices,comp,key)
  comps.append(comp)
  return len(comps)

  ```
  def dfs(self,visited,vertices,comp,key):
      visited[key] = True
      comp.append(key)
      for neigh in vertices[key]:
          if visited[neigh]==False:
              self.dfs(visited,vertices,comp,neigh)
  ```