### The Celebrity Problem

A celebrity is a person who is known to all but does not know anyone at a party. If you go to a party of N people, find if there is a celebrity in the party or not.  
A square NxN matrix M[][] is used to represent people at the party such that if an element of row i and column j  is set to 1 it means ith person knows jth person. Here M[i][i] will always be 0.  
**Note:** Follow 0 based indexing.  
**Follow Up:** Can you optimize it to O(N)

**Example 1:**

**Input:**

N = 3

M[][] = {{0 1 0},

{0 0 0},

{0 1 0}}

**Output:** 1

**Explanation:** 0th and 2nd person both

know 1. Therefore, 1 is the celebrity.

**Example 2:**

**Input:**

N = 2

M[][] = {{0 1},

{1 0}}

**Output:** -1

**Explanation:** The two people at the party both

know each other. None of them is a celebrity.

**Company Tags**

[**Zoho**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=Zoho) [**Flipkart**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=Flipkart) [**Amazon**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=Amazon) [**Microsoft**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=Microsoft) [**Google**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=Google) [**Fab.com**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=Fab.com) [**One97**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=One97) [**United Health Group**](https://practice.geeksforgeeks.org/explore/?company%5b%5d=United%20Health%20Group)

**Topic Tags**

[**Arrays**](https://practice.geeksforgeeks.org/explore/?category%5b%5d=Arrays)[**Stack**](https://practice.geeksforgeeks.org/explore/?category%5b%5d=Stack) [**Data Structures**](https://practice.geeksforgeeks.org/explore/?category%5b%5d=Data%20Structures)

Java code

//Initial Template for Java

import java.io.\*;

import java.util.\*;

class CodingMaxima{

public static void main(String args[]) throws IOException {

Scanner sc = new Scanner(System.in);

int t = sc.nextInt();

while(t>0)

{

int N = sc.nextInt();

int M[][] = new int[N][N];

for(int i=0; i<N; i++)

{

for(int j=0; j<N; j++)

{

M[i][j] = sc.nextInt();

}

}

System.out.println(new Solution().celebrity(M,N));

t--;

}

}

}

// } Driver Code Ends

//User function Template for Java

class Solution

{

//Function to find if there is a celebrity in the party or not.

int celebrity(int M[][], int n)

{

for(int i=0;i<n;i++){

int row=0, col=0;

for(int j=0;j<n;j++){

if(M[i][j]==0)

row++;

}

for(int j=0;j<n;j++){

if(M[j][i]==1)

col++;

}

if( row==n && col==n-1)

return i;

}

return -1;

}

}