



(/en/),
v1.1.0

CSD Testing System

(/en/)

Check the matrix transitivity

Cost: 3 | Solved: 60

Memory limit: 256 MBs

Time limit: 1 s

Input: input.txt

Output: output.txt

Task:

You are given a binary matrix of $n \times n$ elements. Check if it is transitive.

A matrix M is transitive if and only if for any elements a, b, c ($a \neq b \neq c$) such that $M[a][b] = 1$ and $M[b][c] = 1$ the condition $M[a][c] = 1$ is true.

Input:

The first line contains a natural number n – the quantity of matrix rows ($n \leq 1000$).

The next n lines contain n numbers – the values of matrix elements.

Output:

Write 1 if the matrix is transitive, else write 0.

Example:

Input	Output
3 0 1 1 0 0 1 0 0 0	1

