



(/en/),
v1.1.0

CSD Testing System

(/en/)

Check the matrix symmetry

Cost: 2 | Solved: 83

Memory limit: 256 MBs

Time limit: 1 s

Input: input.txt

Output: output.txt

Task:

You are given a matrix of integers. Check if it has a vertical ($a[i][j] = a[n-i][j]$) or a horizontal ($a[i][j] = a[i][m-j]$) symmetry.

Input:

The first line contains two naturals n and m ($1 \leq n, m \leq 10^3$) – the quantity of rows and columns of the matrix.

The next n lines contain m numbers – the values of matrix elements ($1 \leq \text{element}_{ij} \leq 10^9$).

Output:

Write “Yes” if the matrix has symmetry, else write “No”.

Example:

Input	Output
3 3 2 3 4 1 1 1 2 3 4	Yes

3 3 2 1 2 3 1 3 4 1 4	Yes
3 3 1 2 3 4 5 6 7 8 9	No