Graph coloring

Cost: 6 | Solved: 28

Memory limit: 256 MBs

Time limit: 1 s

Input: input.txt

Output: output.txt

Task:

You are given a graph and a natural ***k***.

You have to find out whether or not it's possible to color the graph's vertexes in ***k*** colors provided that any two adjacent vertexes must have different colors.

Input:

The first line contains a natural ***n*** ($1 \le n \le 100$) – the quantity of graph's vertexes, and a natural ***k*** – the number of colors that should be used.

The next ***n*** lines contain the adjacency matrix of the graph.

Output:

"YES" if it's possible to do graph coloring, "NO" otherwise.

Example:

Input	Output

10 3 0 1 0 0 1 1 0 0 0 0 1 0 1 0 0 0 1 0 0 0 0 1 0 1 0 0 0 1 0 0 0 0 1 0 1 0 0 0 1 0 1 0 0 1 0 0 0 0 0 1 1 0 0 0 0 0 0 1 1 0 0 1 0 0 0 0 0 0 1 1 0 0 1 0 0 1 0 0 0 1 0 0 0 1 0 1 1 0 0 0 0 0 0 0 1 0 1 1 0 0	YES

This image shows a variant of coloring of the graph given in the example: