



(/en/),
v1.1.0

CSD Testing System

(/en/)

Negative cycles check

Cost: 8 | Solved: 53

Memory limit: 256 MBs

Time limit: 1 s

Input: input.txt

Output: output.txt

Task:

You are given a directed graph.

Find out if the graph contains a negative cycle.

Input:

The first line contains a natural n ($1 \leq n \leq 100$) – the quantity of the graph's vertexes.

The next n lines contain n numbers – the adjacency matrix of the graph.

Every edge has weight less than 100000. If the number 100000 is written, it means the edge doesn't exist.

Output:

The first line should contain "YES" if a negative cycle exists, "NO" otherwise.

If a cycle exists, write the quantity of its vertexes on the second line and the vertexes themselves on the third line.

If there are several negatives cycles existing, output any of them.

Example:

| | |
|-------|--------|
| Input | Output |
|-------|--------|

| | |
|--|-----------------------------|
| 3 100000 100000 -51 100 100000 100000 100000 -50 100000 | YES 4 3 2 1 3 |
|--|-----------------------------|