
Tiles

P82243_en

Vint-i-dosè Concurs de Programació de la UPC - Semifinal (2024-06-27)

You have $n \cdot m$ square tiles, each painted with a color codified with a number. You will have to use the tiles to cover a floor of dimensions $n \times m$, with just one restriction: there cannot be two or more (horizontal or vertical) adjacent tiles of the same color. Can you find a solution?

Input

Input consists of several cases, each with n and m , followed by $n \cdot m$ numbers, all between 1 and $n \cdot m$. Assume $1 \leq n \cdot m \leq 10^5$.

Output

For each case, if there is no solution, print a line with "NO". Otherwise, print a line with "YES", followed by n lines with m numbers each. If there is more than one solution, you can print any one. Follow strictly the format of the sample output.

Sample input

```
2 3
6 1 1 4 4 6
2 3
6 1 1 4 4 6
2 3
6 6 6 6 2 2
4 4
1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4
1 11
1 2 3 4 5 6 7 8 9 10 11
```

Sample output

```
YES
1 4 6
6 1 4
YES
6 4 1
4 1 6
NO
YES
4 3 2 1
3 1 4 3
1 2 3 1
2 4 2 4
YES
5 11 4 6 3 7 2 8 10 9 1
```

Problem information

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