

Simple Constructive Problem

Input file: **standard input**
Output file: **standard output**
Time limit: 1 second
Memory limit: 1024 megabytes

Given a grid with n rows and m columns, fill each cell with an integer from 0 to $(nm-1)$ (using each integer exactly once) such that for all $0 \leq i < nm$, the cell containing i and the cell containing $(i+1) \bmod nm$ are not adjacent (i.e., they do not share an edge).

Input

There are multiple test cases. The first line of the input contains an integer T ($1 \leq T \leq 10^4$), indicating the number of test cases. For each test case:

The first line contains two integers n and m ($1 \leq n, m \leq 2 \times 10^5$, $3 \leq n \times m \leq 2 \times 10^5$), indicating the number of rows and columns in the grid.

It is guaranteed that the sum of $n \times m$ over all test cases does not exceed 2×10^5 .

Output

For each test case:

- If a valid arrangement exists, first output **Yes** in one line. Then output n lines. The i -th line contains m integers separated by a space, where the j -th integer represents the number filled in the cell at row i and column j . If there are multiple valid arrangements, output any one of them.
- Otherwise, if there is no valid arrangement, just output **No** in one line.

Example

standard input	standard output
2	Yes
3 4	4 9 7 1
1 3	10 0 5 3
	6 2 11 8
	No