Problem C. Not Aqre

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

Given an $n \times m$ matrix, where $n \times m$ is divisible by 3. You need to fill the matrix with 0, 1, and 2, each appearing exactly $\frac{nm}{3}$ times, such that:

- No three identical numbers appear consecutively in a horizontal or vertical direction.
- All cells filled with 0 form an 8-connected region†, all cells filled with 1 form an 8-connected region, and all cells filled with 2 form an 8-connected region.

† Two cells are 8-adjacent if they share a side or a corner. A set of cells is 8-connected if for any two cells in the set, there exists a path connecting them entirely within the set, and each step moves to an 8-adjacent cell.

Input

Each test file contains multiple test cases. The first line contains the number of test cases T ($1 \le T \le 10^3$). The description of the test cases follows.

The first line of each test case contains two integers n and m ($1 \le n, m \le 10^3$, $n \times m$ is divisible by 3), representing the number of rows and columns of the matrix.

For each test file, it is guaranteed that the sum of $n \times m$ over all test cases does not exceed 10^6.

Output

For each test case, if it is impossible to construct a matrix satisfying the conditions, output a single line "No".

Otherwise, output "Yes" on the first line, followed by the matrix with n lines, each containing m numbers. If there are multiple solutions, you may output any one of them.

Example

standard input	standard output
2 3 4 1 12	Yes 0012 0021 2211 No