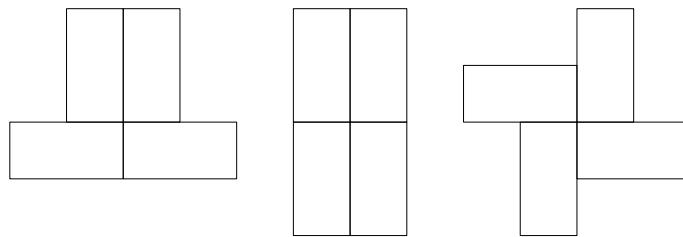

Domino Tiling

Input file: **standard input**
Output file: **standard output**
Time limit: 2 seconds
Memory limit: 64 megabytes

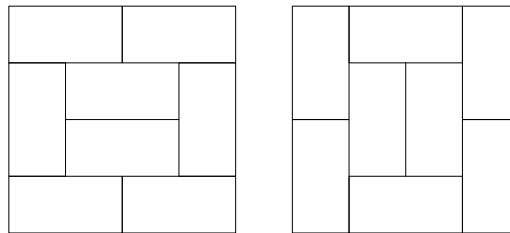
Chiaki has an $n \times m$ rectangular chessboard. She would like to tile this board with dominoes, where a domino is a 2×1 rectangle, such that:

- all the squares of the board are covered but no dominoes overlap or lie partially off the board.
- there must be no points where corners of four different dominoes meet.

The figure below shows some forbidden configurations:



The figure below shows two valid tilings of 4×4 chessboard:



You also need to number the dominoes of chessboard so that no two dominoes have the same number. You can use the number from 1 to $n \times m$.

Input

There are multiple test cases. The first line of input contains an integer T , indicating the number of test cases. For each test case:

The first line contains two integers n and m ($1 \leq n, m \leq 100$) – the size of the rectangular chessboard.

It is guaranteed that the sum of $n \times m$ over all test cases does not exceed 2×10^6 .

Output

For each test case, output a valid chessboard described above. A valid chessboard consists of n lines and each line contains m integers. Each integer in the output should represent the *id* of a domino. The grids sharing the same *id* belong to the same domino.

If there is no solution, output “Impossible!” (without the quotes) instead.

Example

standard input	standard output
3	Impossible!
1 1	1 1 2
4 3	3 4 2
4 4	3 4 5
	6 6 5
	1 1 2 2
	3 4 4 5
	3 6 6 5
	7 7 8 8