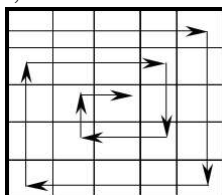


**spiral123****100 points**Source code: **spiral123.c**, **spiral123.cpp**, **spiral123.pas**Input file: **spiral123.in**Output file: **spiral123.out**Time limit: **1.0 s**Memory limit: **64 MB**We shall name a square matrix as *spiral123* if it has the following properties:

- its elements are from the $\{0, 1, 2, 3\}$ set;
- each row and column contains each of the values 1, 2 and 3, exactly once and all the other values are 0;
- starting from the upper-left corner going right, moving in spiral, the non-zero values will appear in the following order 1, 2, 3, 1, 2, 3, ... , 1, 2, 3.



For example a 5x5 spiral123 matrix is the following:

0	1	0	2	3
0	2	3	0	1
1	3	0	0	2
3	0	2	1	0
2	0	1	3	0

TaskFor a given natural number n , you should generate a $n \times n$ spiral123 matrix.**Description of input**The `spiral123.in` file contains only one natural number n on the first line.**Description of output**If there is solution, the `spiral123.out` file must contain n lines, each with n numbers separated with one space, representing the required matrix. If there is no solution, on the single line of the output file, the -1 value will be written.**Constrains**

- $5 \leq n \leq 200$;
- There can be many solutions, any of them can be written.

Example

spiral123.in	spiral123.out	remarks
5	0 1 0 2 3 0 2 3 0 1 1 3 0 0 2 3 0 2 1 0 2 0 1 3 0	another correct solution would be: 0 1 2 3 0 2 3 0 0 1 0 0 3 1 2 1 0 0 2 3 3 2 1 0 0