A. Black-and-White Cube

time limit per test: 0.5 seconds
memory limit per test: 256 megabytes
input: standard input
output: standard output

You are given a cube of size $k \times k \times k$, which consists of unit cubes. Two unit cubes are considered neighbouring, if they have common face.

Your task is to paint each of k^3 unit cubes one of two colours (black or white), so that the following conditions must be satisfied:

- each white cube has exactly 2 neighbouring cubes of white color;
- each black cube has exactly 2 neighbouring cubes of black color.

Input

The first line contains integer k $(1 \le k \le 100)$, which is size of the cube.

Output

Print -1 if there is no solution. Otherwise, print the required painting of the cube consequently by layers. Print a $k \times k$ matrix in the first k lines, showing how the first layer of the cube should be painted. In the following k lines print a $k \times k$ matrix — the way the second layer should be painted. And so on to the last k-th layer. Note that orientation of the cube in the space does not matter.

Mark a white unit cube with symbol "w" and a black one with "b". Use the format of output data, given in the test samples. You may print extra empty lines, they will be ignored.

Examples

input
1

output
-1

input
2

output
bb ww bb ww