

Problem F. Magic Odd Square

Time limit 1000 ms

Mem limit 262144 kB

Find an $n \times n$ matrix with different numbers from 1 to n^2 , so the sum in each row, column and both main diagonals are odd.

Input

The only line contains odd integer n ($1 \leq n \leq 49$).

Output

Print n lines with n integers. All the integers should be different and from 1 to n^2 . The sum in each row, column and both main diagonals should be odd.

Sample 1

Input	Output
1	1

Sample 2

Input	Output
3	2 1 4 3 5 7 6 9 8