Number Diamond Pattern



Print the following pattern for input n. (Observe the spaces carefully before solving)

Input Format

An integer n is given as input.

Constraints

2 <= n <= 20

Output Format

Print the pattern.

Sample Input 0

2

Sample Output 0

0 0 1 0 0 1 2 1 0 0 1 0 0

Sample Input 1

3

Sample Output 1

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