



## Groups of Numbers

**Task.** There is given a natural number  $N$ . Write a program to distribute the natural numbers  $1..N^2$  into  $N$  groups so that the following conditions would be satisfied

1. Each group consists of  $N$  numbers.
2. Each number belongs to one group only.
3. The numbers of each group sum to the same number.

**Output.** Each group of numbers should be printed on a separate line. Each number should be allocated 4 positions when printing. The sum of the numbers of each group should be printed as the last number of each line.

**Examples.**

Input	Output
4	1 6 11 16 34 13 2 7 12 34 9 14 3 8 34 5 10 15 4 34

**Constraints.**  $1 \leq N \leq 18$ .