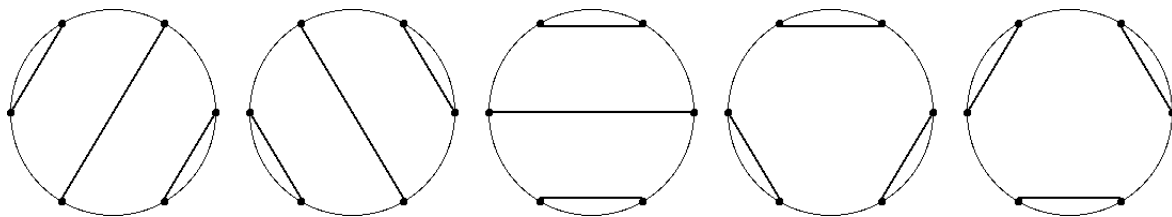


As any **minimally superstitious** person knows all too well, terrible things will happen when four persons do a crossed handshake.

You, an **intrepid** computer scientist, are given the task of easing the burden of these people by providing them with the **feasible** set of handshakes that include everyone in the group while avoiding any such crossings. The following figure illustrates the case for 3 pairs of persons:



## Input

The input to this problem contains several datasets separated by a blank line. Each dataset is simply an integer  $n$ , the number of **pairs** of people in the group, with  $1 \leq n \leq 10$ .

## Output

The output is equally simple. For each dataset, print a single integer indicating the number of possible crossless handshakes that involve everyone in a group with  $n$  pairs of people. Print a blank line between datasets.

## Sample Input

4

## Sample Output

14