Problem G
Computer Transformation

Input File: G.IN
Output File: standard output
Program Source File: G.C, G.CPP, G.JAVA, G.PAS

A sequence consisting of one digit, the number 1 is initially written into a computer. At each successive time step, the computer simultaneously tranforms each digit 0 into the sequence 1 0 and each digit 1 into the sequence 0 1. So, after the first time step, the sequence 0 1 is obtained; after the second, the sequence 1 0 0 1, after the third, the sequence 0 1 1 0 1 0 0 1 and so on.

How many pairs of consequitive zeroes will appear in the sequence after n steps?

Input: Every input line contains one natural number n ($0 < n \leq 1000$).

Output: For each input n print the number of consequitive zeroes pairs that will appear in the sequence after n steps.

Sample Input
2
3

Sample output
1
1