Problem G Tiling

Input: standard input Output: standard output Time Limit: 2 seconds Memory Limit: 32 MB

In how many ways can you tile a 2xn rectangle by 2x1 or 2x2 tiles?

Here is a sample tiling of a 2x17 rectangle.



Input and Output

Input is a sequence of lines, each line containing an integer number 0 <= n <= 250. For each line of input, output one integer number in a separate line giving the number of possible tilings of a 2xn rectangle.

Sample Input

28

12

100

200

Sample Output

3 171

2731

845100400152152934331135470251

1071292029505993517027974728227441735014801995855195223534251

University of Alberta Local Contest