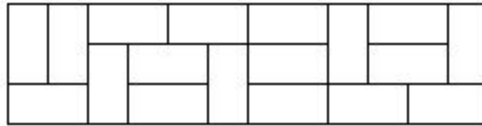


E // Fitting The Pieces Together

When Zhehai goes to the store he finds that he needs to know how to fit the most presents into his cart. He has a $3 \times N$ size cart and each gift takes up a space of 2×1 . How many different ways can he completely fill his cart?



Input Specification:

The first line will contain of a positive integer N .

Output Specification:

Output the number of different tilings possible.

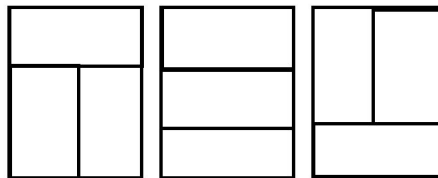
Sample Input 1:

2

Sample Output 1:

3

Explanation:



Sample Input 2:

5

Sample Output 2:

0