

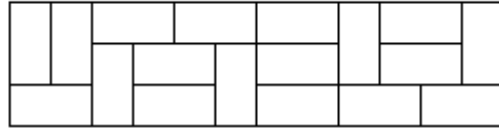
# LATGACH3

[English](#)

[Vietnamese](#)

In how many ways can you tile a  $3 \times n$  rectangle with  $2 \times 1$  dominoes?

Here is a sample tiling of a  $3 \times 12$  rectangle.



Input consists of several test cases followed by a line containing -1. Each test case is a line containing an integer  $0 \leq n \leq 30$ . For each test case, output one integer number giving the number of possible tilings.

## Example

**Input:**

2  
8  
12  
-1

**Output:**

3  
153  
2131