1225. Flags

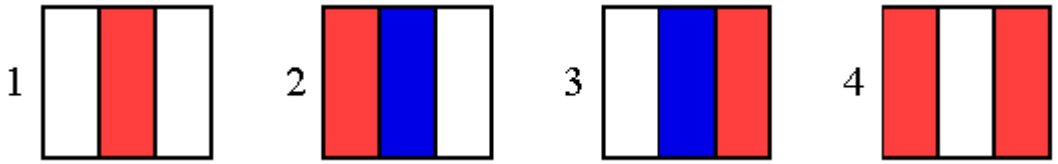
Time limit: 1.0 second
Memory limit: 64 MB

On the Day of the Flag of Russia a shop-owner decided to decorate the show-window of his shop with textile stripes of white, blue and red colors. He wants to satisfy the following conditions:

1. Stripes of the same color cannot be placed next to each other.
2. A blue stripe must always be placed between a white and a red or between a red and a white one.

Determine the number of the ways to fulfill his wish.

Example. For $N = 3$ result is following:



Input

N, the number of the stripes, $1 \le N \le 45$.

Output

M, the number of the ways to decorate the shop-window.

Samples

input	output
1	2
2	2
3	4

Problem Source: 2002-2003 ACM Central Region of Russia Quarterfinal Programming Contest, Rybinsk, October 2002
Tags: dynamic programming (hide tags for unsolved problems)

Difficulty: 37 Printable version Submit solution Discussion (21)
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