

1225. Flags

Time limit: 1.0 second

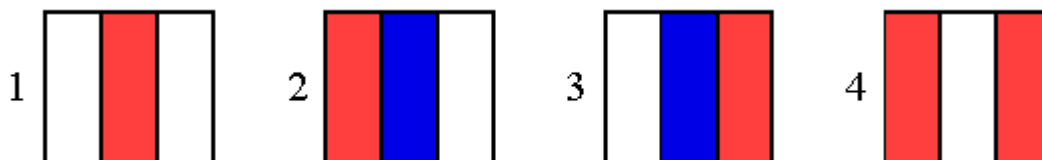
Memory limit: 64 MB

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, $1 \leq N \leq 45$.

Output

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

Sample

input	output
3	4

Problem Source: 2002-2003 ACM Central Region of Russia Quarterfinal Programming Contest, Rybinsk, October 2002