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## Birthday Invitation

It's Lili's birthday! Lili wants to invite her  $N$  friends with  $N$  balloons to her birthday. The balloons are either Red or Blue colored with a number from 1 to  $N$ . The  $i$ -th balloon is for the  $i$ -th friend. She wants to order at least 1 balloon from each of the colors. She wondered how many configurations of balloons she can give to her friends.

### Format Input

The input consists of one line containing an integer  $N$  the number of friends.

### Format Output

Output the number of balloons configurations.

### Constraints

$1 \leq N \leq 30$

Sample Input 1	Sample Output 1
1	0

Sample Input 2	Sample Output 2
2	2

### Note

In the first sample input, Lili cannot have both red and blue balloons.

In the second example, Lili can give the first friend a red balloon and the second friend a blue balloon and vice versa.