HackerLand Enterprise is adopting a new viral advertising strategy. When they launch a new product, they advertise it to exactly 5 people on social media.

On the first day, half of those 5 people (i.e., $floor(\frac{5}{2}) = 2$) like the advertisement and each shares it with 3 of their friends. At the beginning of the second day, $floor(\frac{5}{2}) \times 3 = 2 \times 3 = 6$ people receive the advertisement.

Each day, $floor(\frac{recipients}{2})$ of the recipients like the advertisement and will share it with 3 friends on the following day. Assuming nobody receives the advertisement twice, determine how many people have liked the ad by the end of a given day, beginning with launch day as day 1.

For example, assume you want to know how many have liked the ad by the end of the 5th day.

```
Day Shared Liked Cumulative
1       5     2        2
2       6     3        5
3       9     4        9
4      12     6       15
5      18     9       24
```

The cumulative number of likes is 24.

Function Description

Complete the *viralAdvertising* function in the editor below. It should return the cumulative number of people who have liked the ad at a given time.

viralAdvertising has the following parameter(s):

- *n*: the integer number of days

Input Format

A single integer, n, denoting a number of days.

Constraints

- $1 \le n \le 50$

Output Format

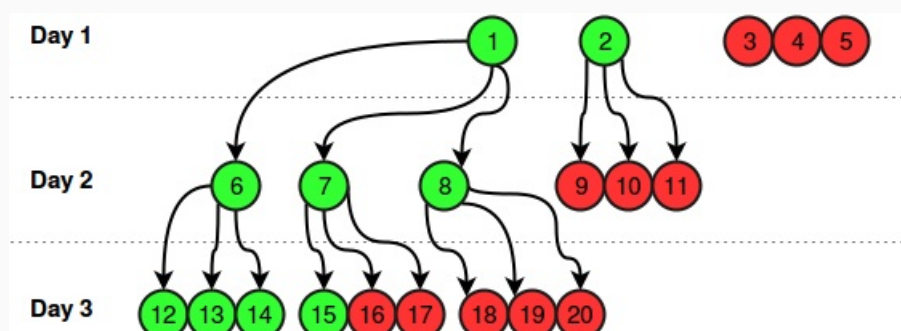Print the number of people who liked the advertisement during the first n days.

Sample Input

3

Sample Output

9

Explanation

This example is depicted in the following diagram:

2 people liked the advertisement on the first day, 3 people liked the advertisement on the second day and 4 people liked the advertisement on the third day, so the answer is $2 + 3 + 4 = 9$.