Viral Advertising

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.

Example

$n = 5$.

```
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 progression is shown above. The cumulative number of likes on the 5th day is 24.

Function Description

Complete the *viralAdvertising* function in the editor below.

viralAdvertising has the following parameter(s):

- *int n:* the day number to report

Returns

- *int:* the cumulative likes at that day

Input Format

A single integer, n, the day number.

Constraints
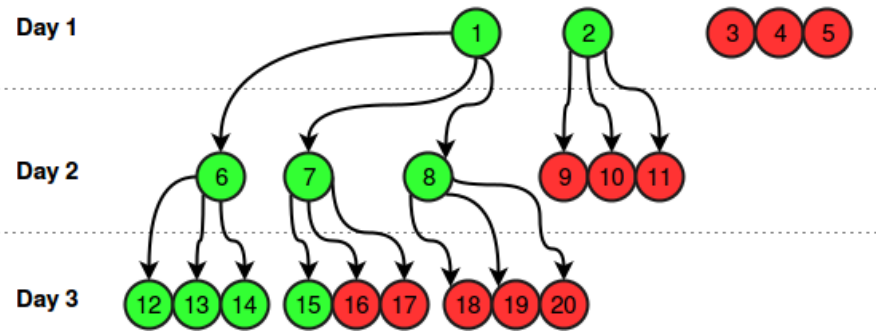
- $1 \leq n \leq 50$

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 $2 + 3 + 4 = 9$.