The Utopian Tree goes through *2* cycles of growth every year. Each spring, it *doubles* in height. Each summer, its height increases by *1* meter.

Laura plants a Utopian Tree sapling with a height of *1* meter at the onset of spring. How tall will her tree be after N growth cycles?

Input Format

The first line contains an integer, T, the number of test cases.

T subsequent lines each contain an integer, N, denoting the number of cycles for that test case.

Constraints

1 <= T <= 10

0 <= N < = 60

Output Format

For each test case, print the height of the Utopian Tree after N cycles. Each height must be printed on a new line.

Sample Input

```
3
0
1
4
```

Sample Output

```
1
2
7
```

Explanation

There are *3* test cases.

In the first case (N = 0), the initial height (H = 1) of the tree remains unchanged.

In the second case (N = 1), the tree doubles in height and is 2 meters tall after the spring cycle.

In the third case (N = 4), the tree doubles its height in spring (H = 2), then grows a meter in summer (H = 3), then doubles after the next spring (H = 6), and grows another meter after summer (H = 7). Thus, at the end of 4 cycles, its height is 7 meters.

Related Topics

- If - Else statements
- Closed Form

Submissions:

122830

Max Score:

20

Difficulty:

Easy