Utopian Tree

Problem Statement

The Utopian Tree goes through *2* cycles of growth every year. The first growth cycle occurs during the spring, when it *doubles* in height. The second growth cycle occurs during the summer, when its height increases by *1* meter.

Now, a new Utopian Tree sapling is planted at the onset of spring. Its height is *1* meter. Can you find the height of the tree after N growth cycles?

Input Format

The first line contains an integer, T, the number of test cases.
T lines follow; each line contains an integer, N, that denotes the number of cycles for that test case.

Constraints
$1 \le T \le 10$
$0 \le N \le 60$

Output Format

For each test case, print the height of the Utopian Tree after N cycles. Each line thus has to contain a single integer, only.

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 (*1*) of the tree remains unchanged.

In the second case (when N = 1, i.e. after the 1st cycle), the tree doubles its height as it's planted at the onset of spring.

In the third case ($N = 4$), the tree first doubles its height (*2*), then grows a meter (*3*), then doubles again (*6*), before growing another meter; at the end of the 4th cycle, its height is *7* meters.