

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

$$1 \leq T \leq 10$$

$$0 \leq N \leq 60$$

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.