

## 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 testcases.

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

In the second case (when  $N = 1$ , i.e. after the 1<sup>st</sup> 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 another meter (3), then doubles again (6), before growing another meter; at the end of the 4<sup>th</sup> cycle, its height is 7 meters.