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.

A Utopian Tree sapling with a height of 1 meter is planted at the onset of spring. How tall will the tree be after $n$ growth cycles?

For example, if the number of growth cycles is $n=5$, the calculations are as follows:

| Period | Height |
| :--- | :---: |
| 0 | 1 |
| 1 | 2 |
| 2 | 3 |
| 3 | 6 |
| 4 | 7 |
| 5 | 14 |

## Function Description

Complete the utopianTree function in the editor below.
utopianTree has the following parameter(s):

- int $n$ : the number of growth cycles to simulate


## Returns

- int: the height of the tree after the given number of cycles


## Input Format

The first line contains an integer, $t$, the number of test cases.
$t$ subsequent lines each contain an integer, $n$, the number of cycles for that test case.

## Constraints

$1 \leq t \leq 10$
$0 \leq n \leq 60$

## Sample Input

```
3
0
1
4
```


## Sample Output

```
1
2
7
```

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 ( $n=1, H=2$ ), then grows a meter in summer ( $n=2, H=3$ ), then doubles after the next spring ( $n=3, H=6$ ), and grows another meter after summer ( $n=4, H=7$ ). Thus, at the end of 4 cycles, its height is 7 meters.

