



## Problem L: Bus

A bus with  $n$  passengers opens its door at the bus stop. Exactly half of its passengers and an additional half of a passenger get out. On the next stop, again, half of the passengers plus half of a passenger leave the bus. This goes on for  $k$  stops in total. Knowing that the bus leaves the last stop empty, and that no one was hurt during the trip, determine the initial number  $n$  of people in the bus.

### Input

The first line of input contains the number of test cases  $T$ . The descriptions of the test cases follow:

The only line of each test case contains the number of stops  $k$ ,  $1 \leq k \leq 30$ .

### Output

For each test case, output a single line containing a single integer – the initial number of bus passengers.

### Example

For an example input	the correct answer is:
2	1
1	7
3	