Fibonacci

Description

Remember Fibonacci numbers? The fibonacci sequence is defined as f(0) = 1, f(1) = 1, f(n) = f(n-1) + f(n-2). It was originally developed as a means of calculating the size of a population of rabbits after *n* years or something like that. Now, it's a famous CS and math nerd thing for some reason.

Honestly, I think it's more impressive if you know the first 10 fibonacci numbers than if you know 10 digits of pi.

Input

The first line will contain a single integer **T** (1 <**T** < 101), which will be the number of lines in the input file. The next **T** lines will contain a number **N** (1 < T < 420), which is the n value in f(n)

Output

For each number **T**, output the value of f(**N**) to the console..

Examples

Input
6
1
2
3
4
5
6

Output
1
2
3
5
8
13