



1029



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Fibonacci, How Many Calls?

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Timelimit: 1

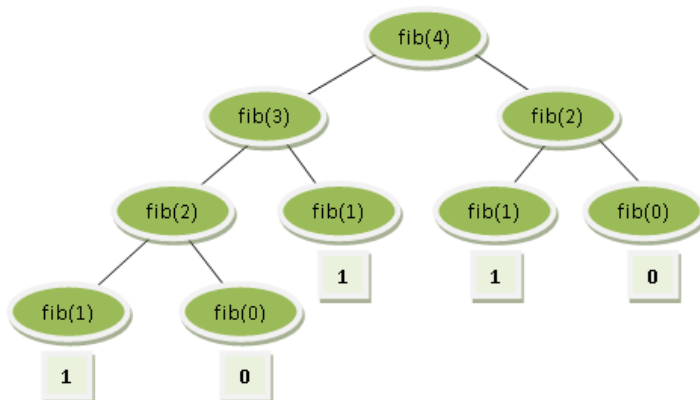
Sometimes when you are a Computer Science student, you'll see an exercise or a problem involving the Fibonacci sequence. This sequence has the first two values 0 (zero) and 1 (one) and each next value will always be the sum of the two preceding numbers. By definition, the formula to find any Fibonacci number is:

$$\text{fib}(0) = 0$$

$$\text{fib}(1) = 1$$

$$\text{fib}(n) = \text{fib}(n-1) + \text{fib}(n-2);$$

One way of finding Fibonacci numbers is by recursive calls. This is illustrated below, presenting the tree of derivation when we calculate $\text{fib}(4)$, i.e. the fifth value of this sequence:



In this way,

- $\text{fib}(4) = 1+0+1+1+0 = 3$
- 8 recursive calls were done.

Input

The first input line contains a single integer **N**, indicating the number of test cases. Each test case contains an integer number **X** ($1 \leq X \leq 39$).

Output

For each test case we will have an output line, in the following format: $\text{fib}(n) = \text{num_calls}$ calls = **result**, where num_calls is the number of recursive calls, always with a space before and after the equal sign, as shown below.

Input Sample	Output Sample
2	$\text{fib}(5) = 14$ calls = 5
5	$\text{fib}(4) = 8$ calls = 3
4	