

Exercise 3 (recursion)

Write down a recursive function to calculate Fibonacci numbers. Recall that Fibonacci numbers are defined in the following manner:

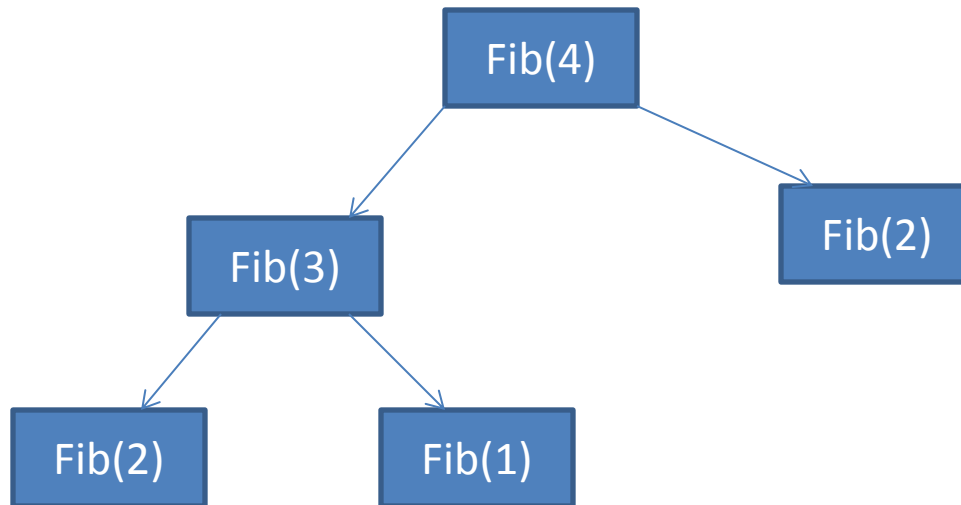
$$F_1 = F_2 = 1$$

$$F_n = F_{n-1} + F_{n-2}$$

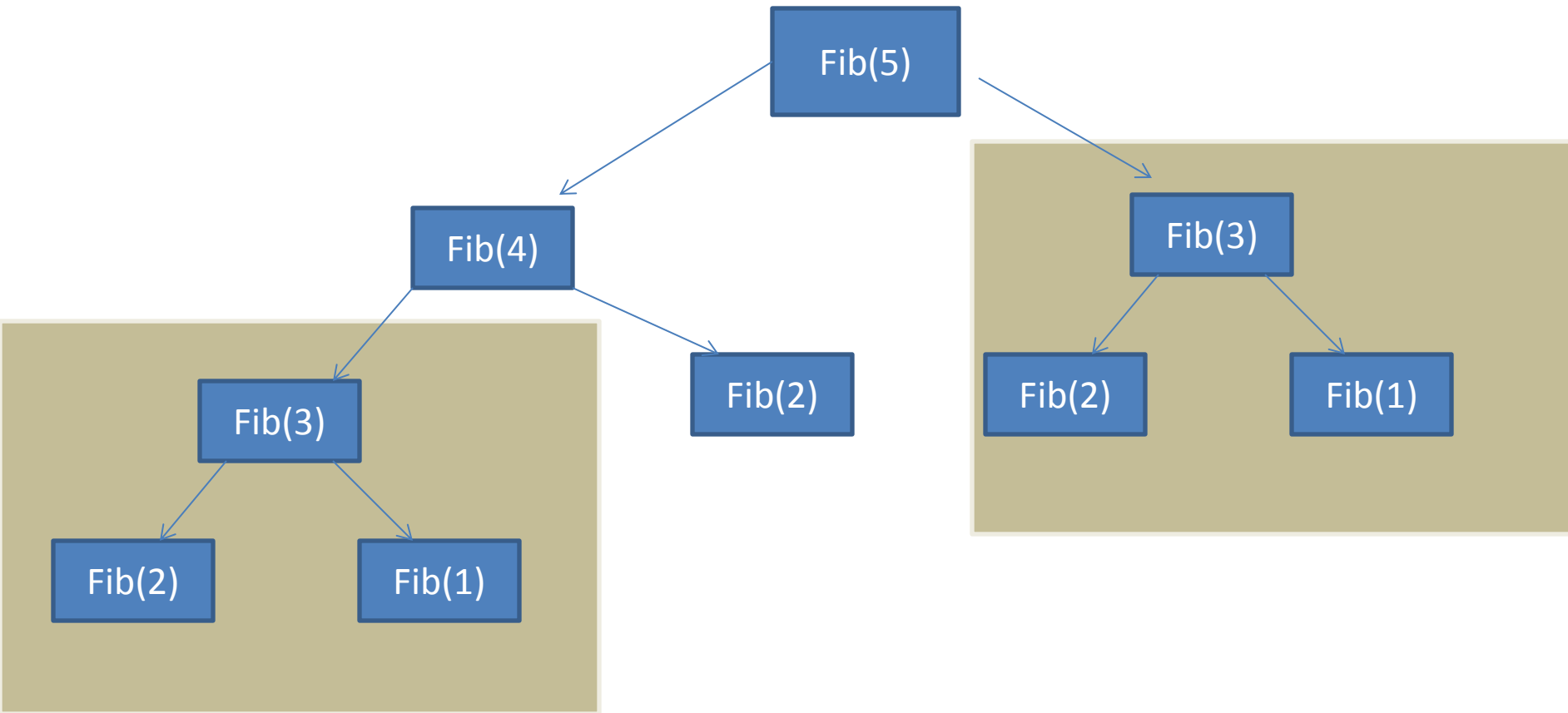
Given an input n , your function should calculate and return F_n . Be aware of the base case and of illegal values of input n .

If you can, count the number of times the function is called (using a global counter) when you are trying to calculate F_{10} .

Fibonacci number stack building: Fib(4)



Fibonacci number stack building: Fib(5)



Question

- Write a recursive function that counts the number of function calls in $\text{Fib}(n)$