

Solution 1. We solve the problem using Fibonacci numbers:

```
1: function FIB( $n$ ):  
2:   # input: int  $n > 0$   
3:   # output: fibonacci( $n$ )  
4:   if  $n > 1$  then  
5:     return 1  
6:   else  
7:     return FIB( $n - 1$ ) + FIB( $n - 2$ )
```

The correctness is obvious and the complexity analysis is elusive.