

FIB(n):

```
1  if  $n < 0$ :  
2      return null  
3  if  $n = 0$  or  $n = 1$ :           // you can also  
4      return  $n$                  // add comments!  
5  return  $\text{FIB}(n - 1) + \text{FIB}(n - 2)$ 
```

```
if  $n < 0$ :  
    return null  
if  $n = 0$  or  $n = 1$ :  
    return  $n$   
  
let  $x \leftarrow 0$   
let  $y \leftarrow 1$   
for  $i \leftarrow 2$  to  $n - 1$ : // so dynamic!  
    let  $z \leftarrow x + y$   
     $x \leftarrow y$   
     $y \leftarrow z$   
  
return  $x + y$ 
```

$FIB(n)$:

```
1  if  $n < 0$ :  
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3  if  $n = 0$  or  $n = 1$ :  
4  |   return  $n$   
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6  let  $x \leftarrow 0$   
7  let  $y \leftarrow 1$   
8  for  $i \leftarrow 2$  to  $n - 1$ : ▷ so dynamic!  
9  |   let  $z \leftarrow x + y$   
10 |    $x \leftarrow y$   
11 |    $y \leftarrow z$   
12  
13 return  $x + y$ 
```

```
1 def fib(n):
2     if n < 0:
3         return None
4     if n == 0 or n == 1:      # this comment is
5         return n              # normal raw text
6     return fib(n-1) + fib(n-2)
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```
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3     |     return None
4     | if n == 0 or n == 1:      # this comment is
5     |     return n              # normal raw text
6     | return fib(n-1) + fib(n-2)
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