

$$F = [0, 1]$$

fibonacci(n):

si $n=0$

resp.

0

si $n=1$

resp.

1

si $n > 1$

resp.

fibonacci(n-1) + fibonacci(n-2)

recursion directa

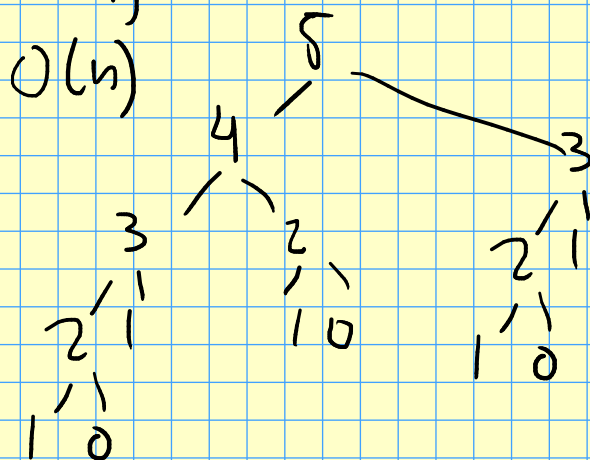
$$O(4^n)$$

$$O(1)$$

recursivo

$$O(n)$$

$$O(n)$$



fib(10)

fib(9)

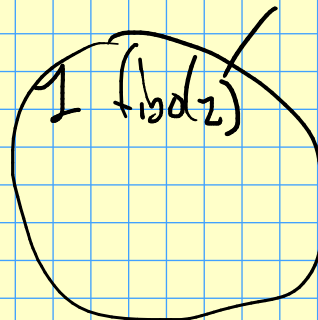
fib(8)

fib(7)

fib(6)

fib(5) 1

fib(3)

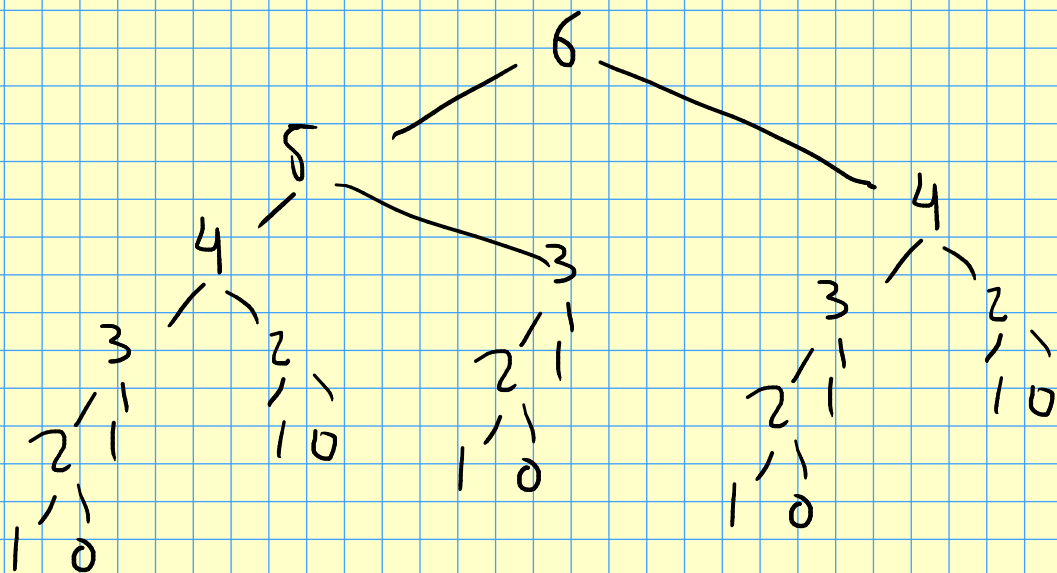


fib(4)

fib(2)

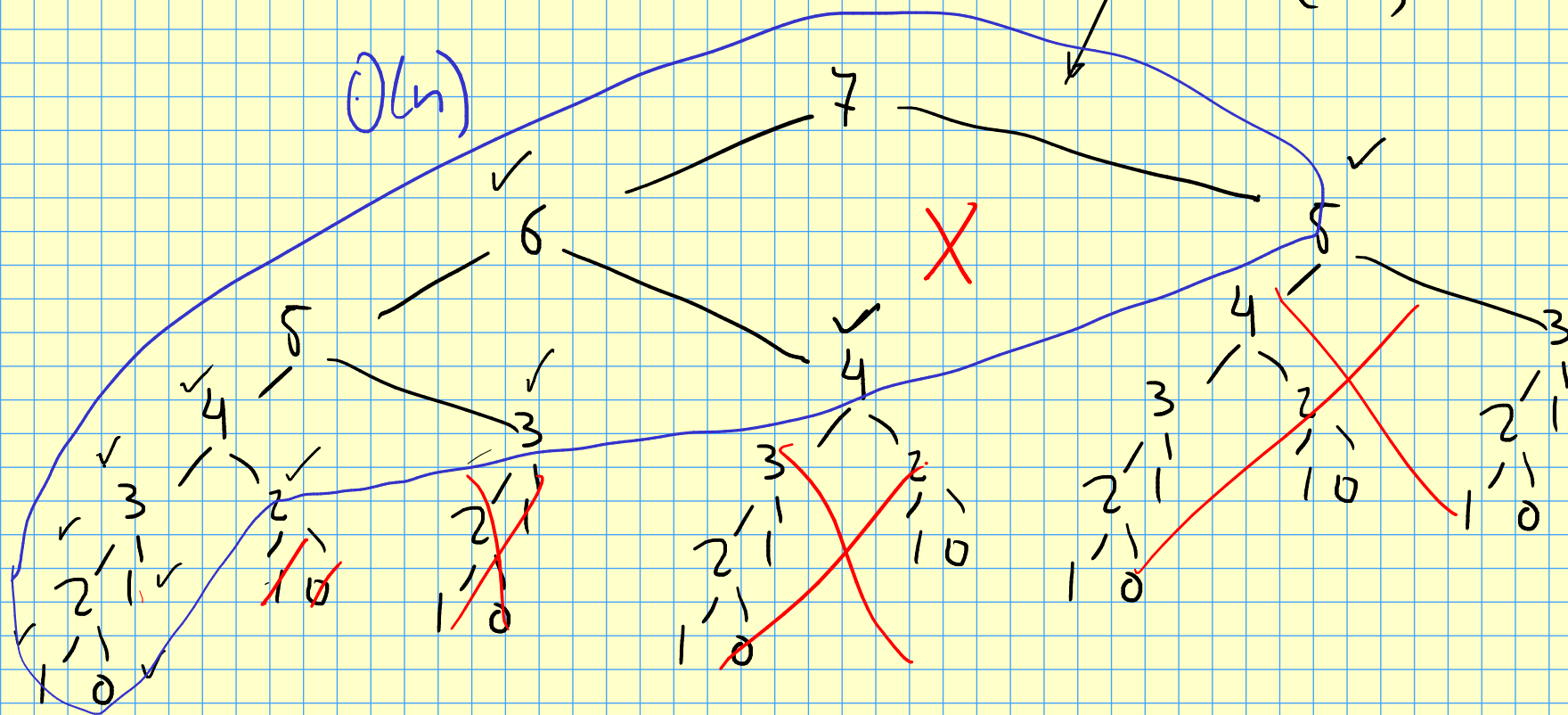
fib(1)

fib(0)



$$\Theta(4^n)$$

$$\Theta(2^n)$$



Mucho mejor idea: cada que busquemos un nuevo valor, lo almacenamos.
Si lo necesitamos volver a usar, lo tenemos de memoria.