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).

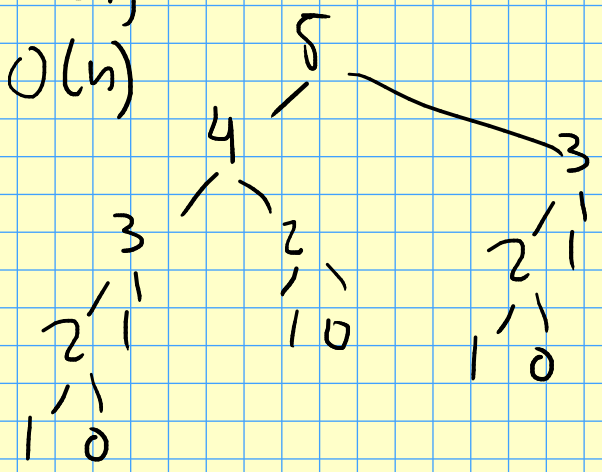
recursión directa

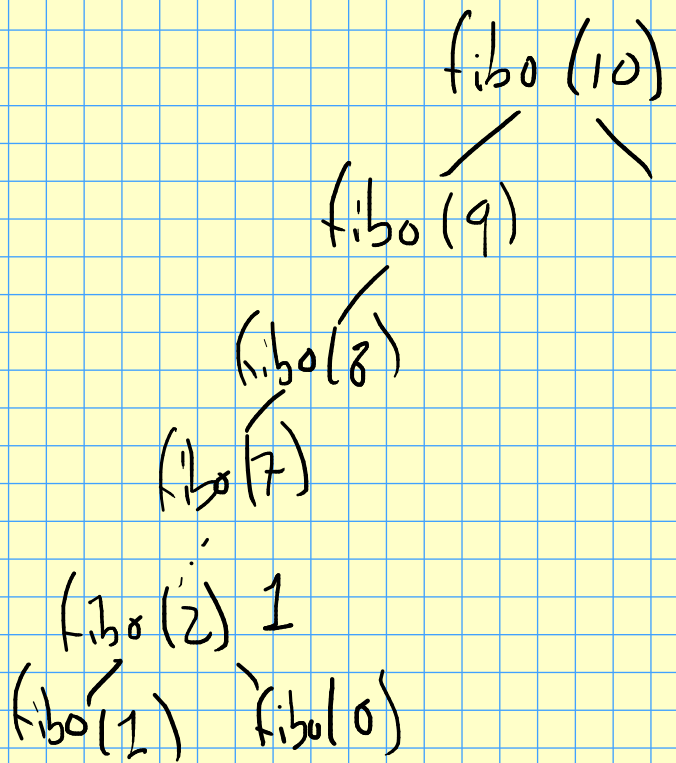
$\Theta(\varphi^n)$ ó $O(1)$

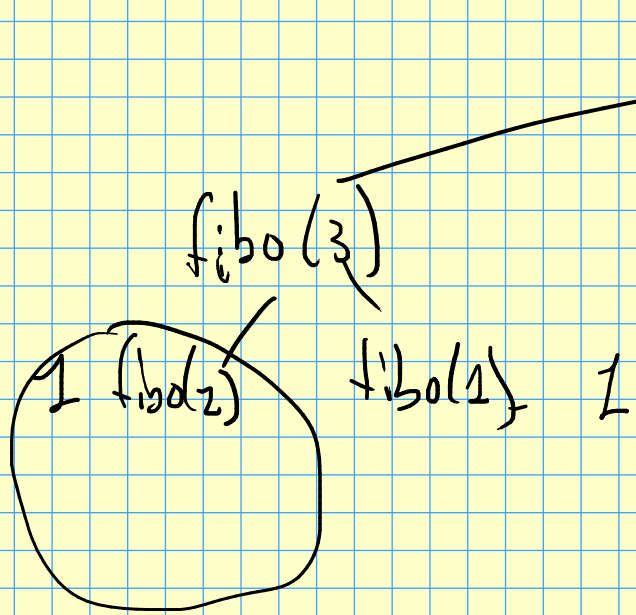
recordar

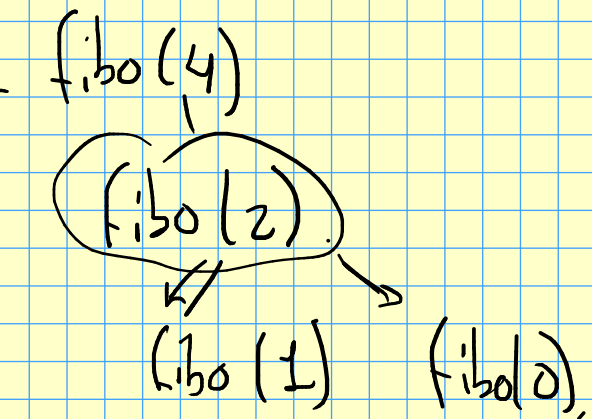
$O(n)$

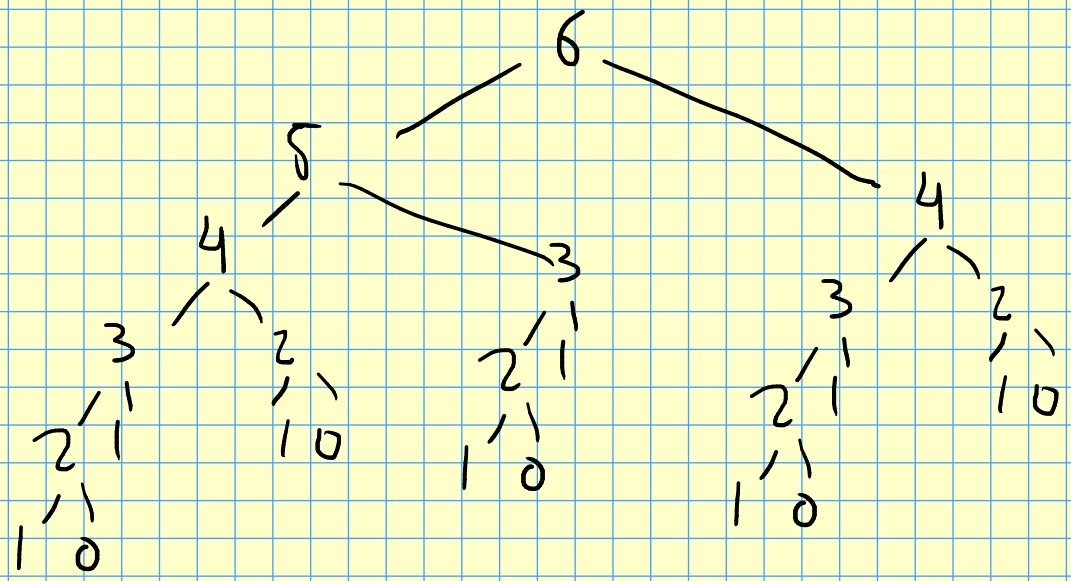
$O(n)$





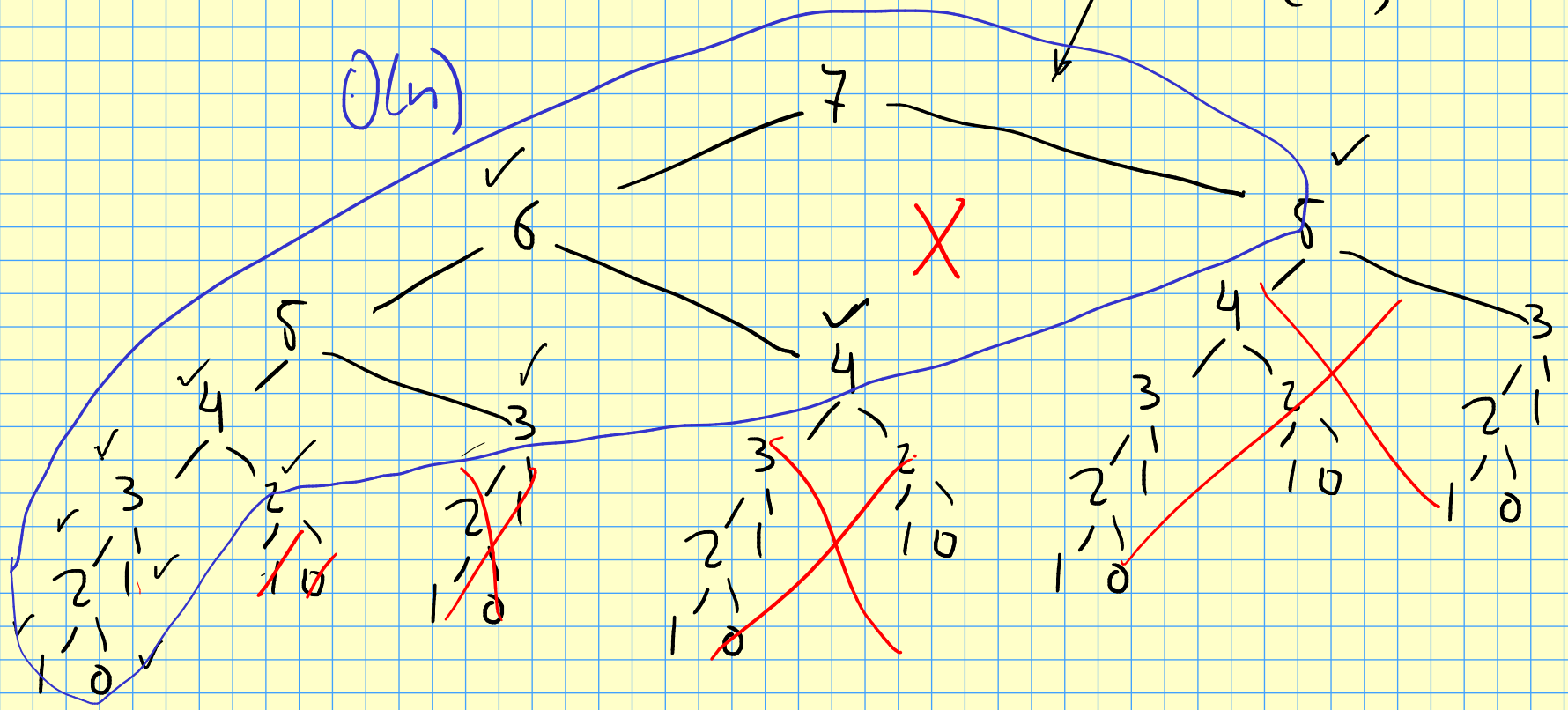




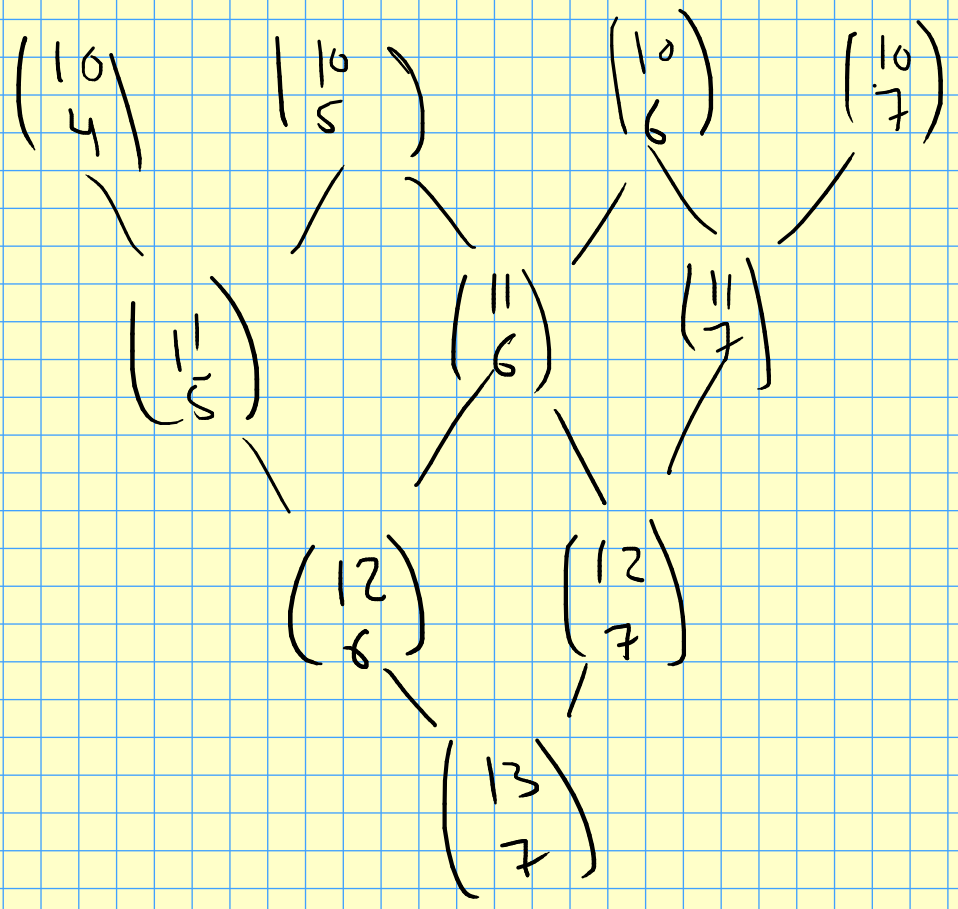


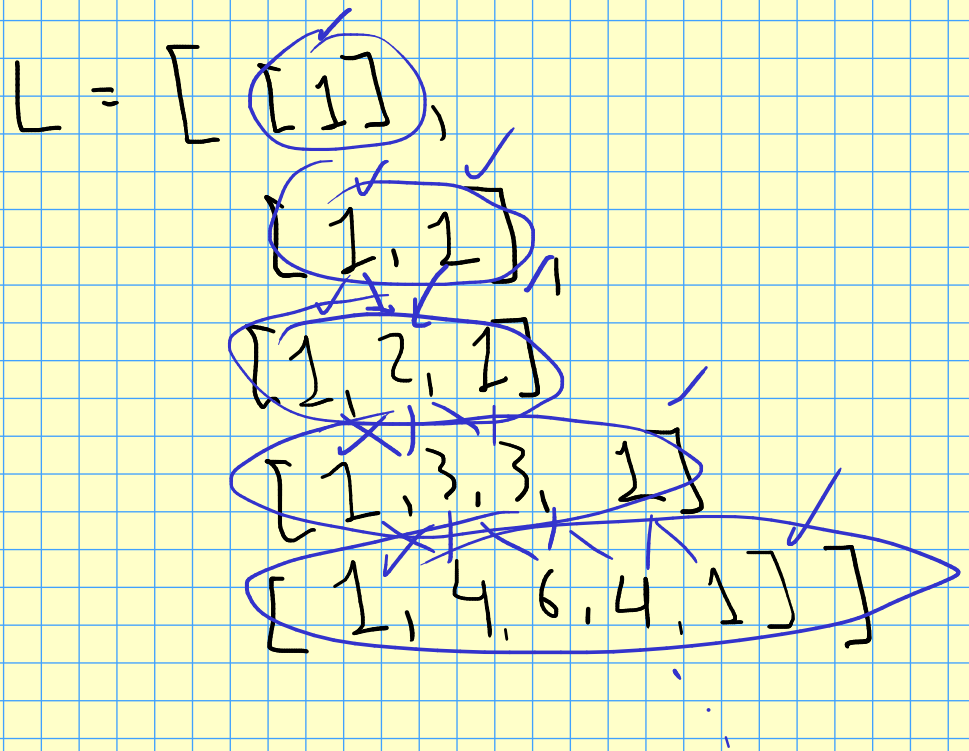
$\Theta(\varphi^n)$

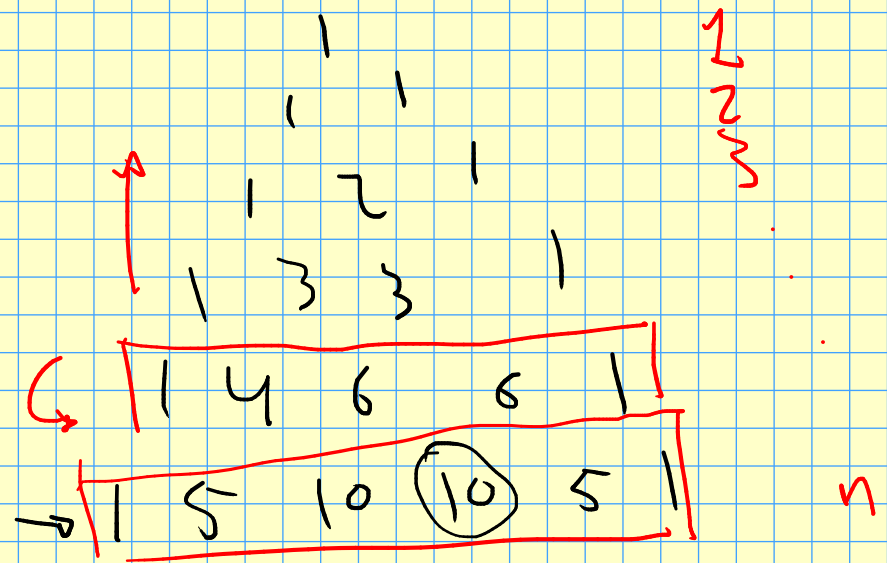
$\Theta(c^n)$



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





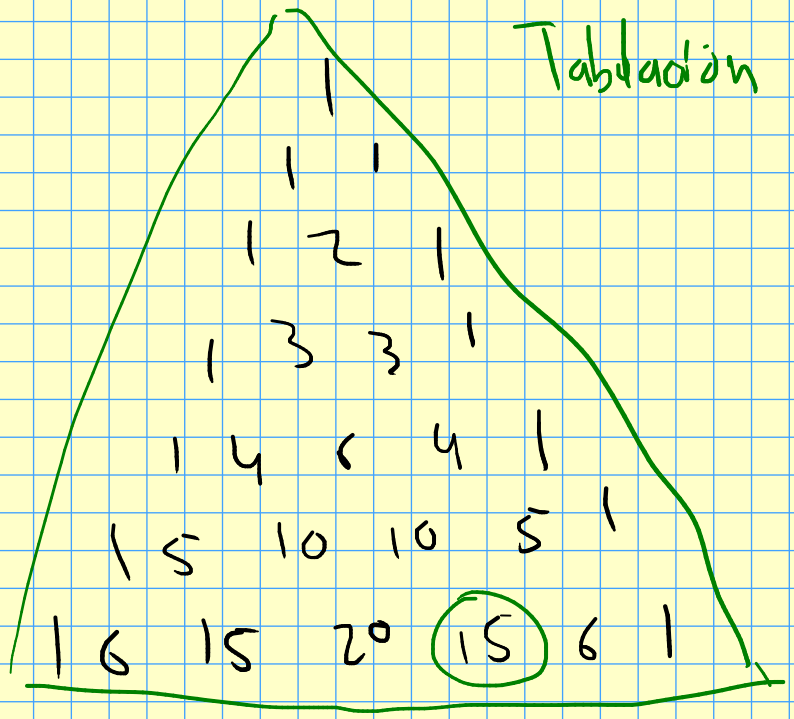


$1 + \dots + n = O(n^2)$

$\binom{n}{k}$ → · hacer tabla hasta nivel n. espacio $O(n)$

· reportar $[n][k]$

Tabulación



Memoización