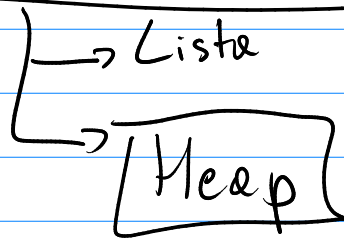


Cola de Prioridad



Espacio
 $2n$

Insert
 $O(1)$
 $O(n)$

$n + O(1)$

$O(\lg n)$

ADT

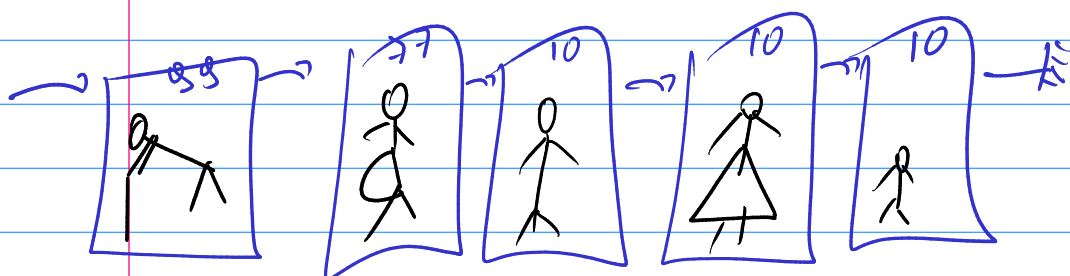
ExtraerMax
 $O(n)$
 $O(1)$

$O(\lg n)$

n^2

n^2

$n \lg n$

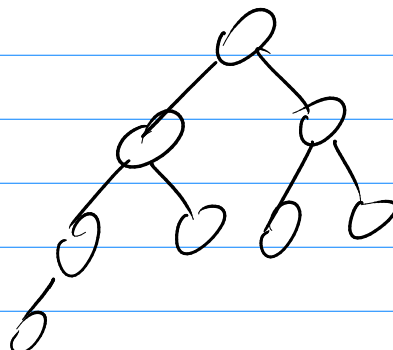
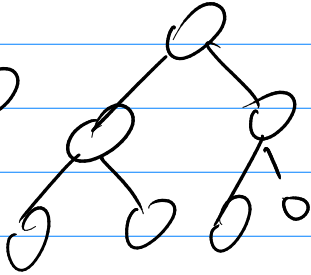
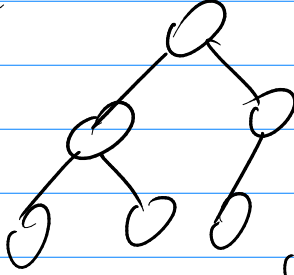


Heap Shape

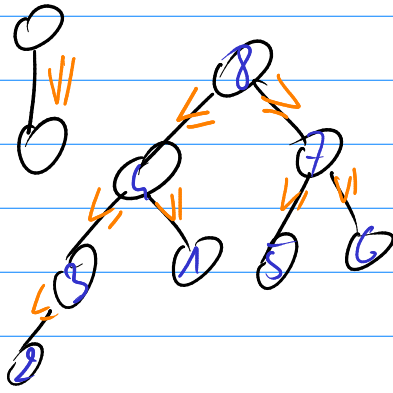
$n=6$

$n=7$

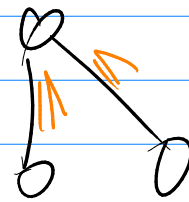
$n=8$



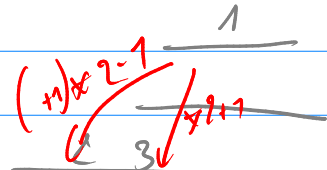
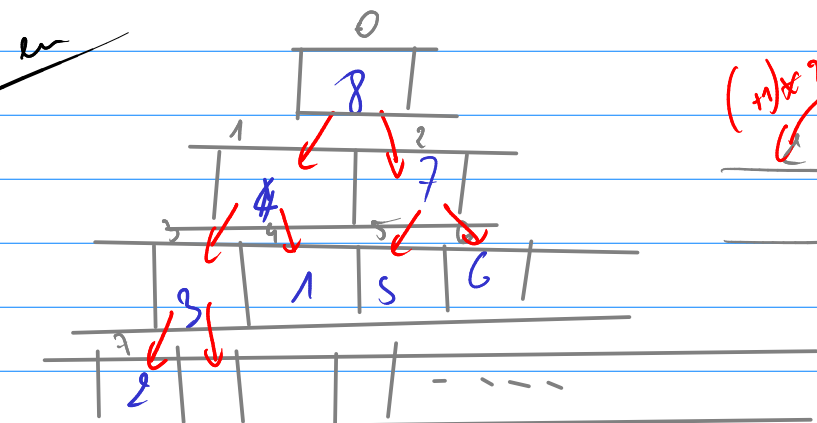
(Max) Heap Property



MinHeap

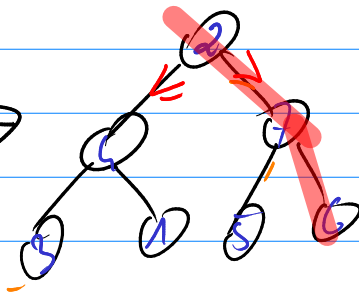
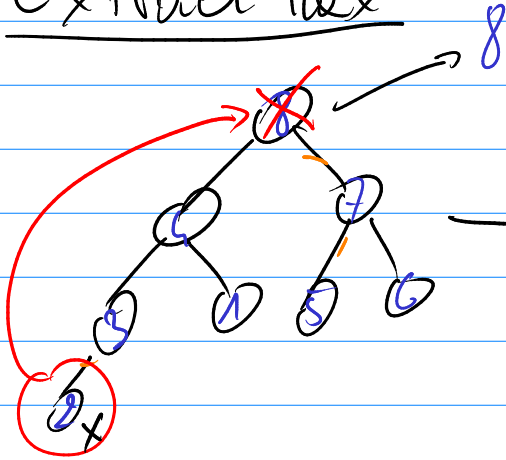


Navegación en heap



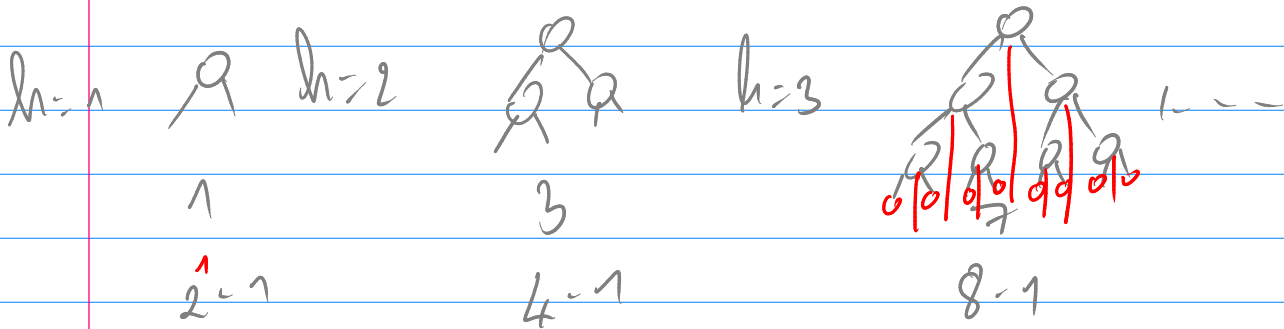
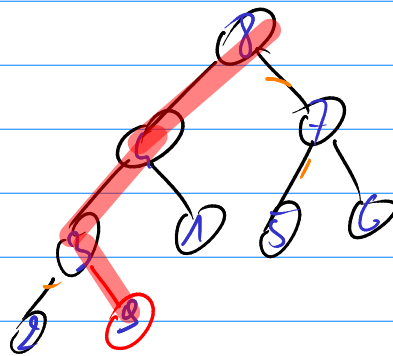
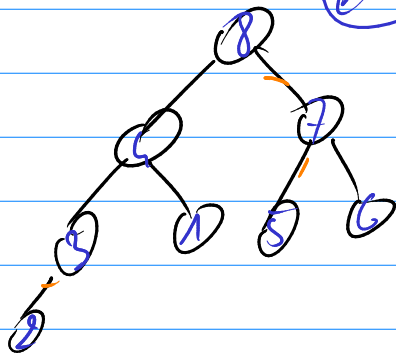
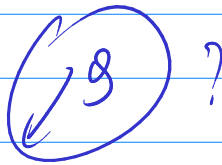
hijo izquierdo (P)
 $(p+1) \times 2 - 1 = 2p+1$
hijo derecho (P)
 $(p+1) \times 2 + 1 - 1 = 2p+2$

Extraer Max



Altura del árbol
 $= \lceil \log_2 n \rceil$

Insert(x)



$$h \rightarrow 2^h - 1 = n \text{ nodes}$$

$$h = \lg(n+1)$$