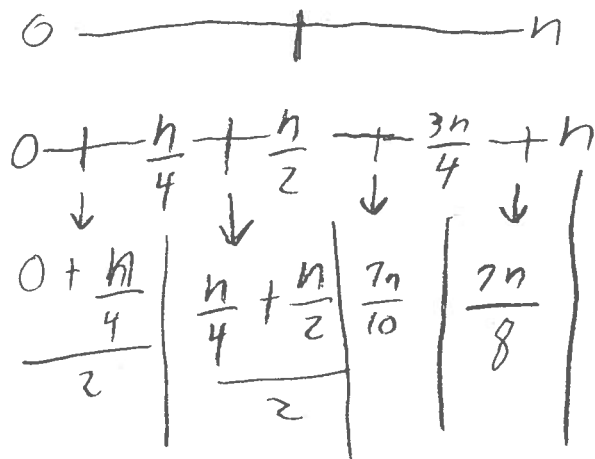
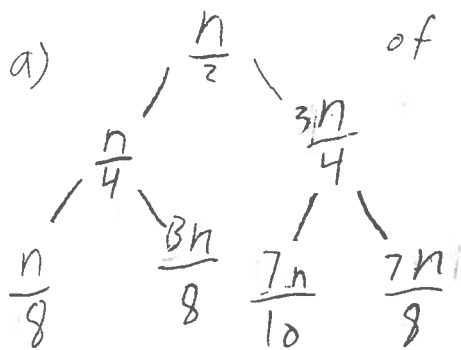


you want as many element on the left and right of each node, so just divide each halves in between children.

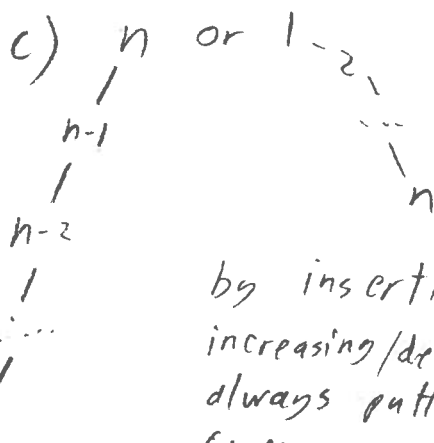


b) for $n=1 \rightarrow 1$

$1 \rightarrow 1$	$2^0 \rightarrow 1$
$2 \rightarrow 2$	$2^1 \rightarrow 2$
$3 \rightarrow 2$	$2^2 \rightarrow 3$
$4 \rightarrow 3$	$2^3 \rightarrow 4$
\downarrow	
$7 \rightarrow 3$	$n = 2^k \Rightarrow k+1$

$\log_2 n = K$

running time is $O(\log_2 n)$



by inserting all element in increasing/decreasing order and always putting on the same side (left or right)

d) worst running time case/ O notation for find/remove/insert.

find : $O(n)$ \rightarrow node is at the bottom, has to go through n nodes

remove : $O(n) \rightarrow \text{find}(O(m)) + O(1)$

insert: $Q(n) \rightarrow \text{find}(Q(n)) + O(1)$