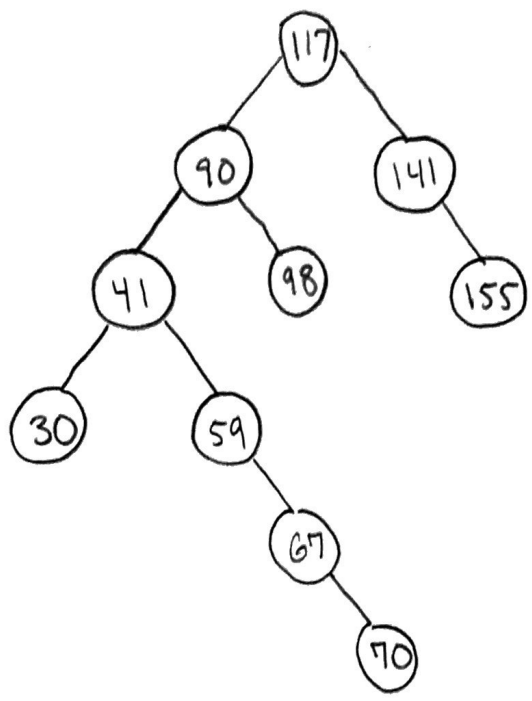
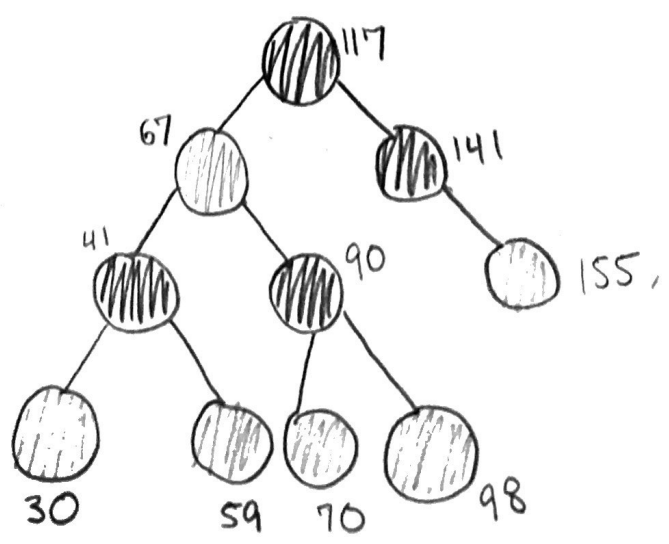
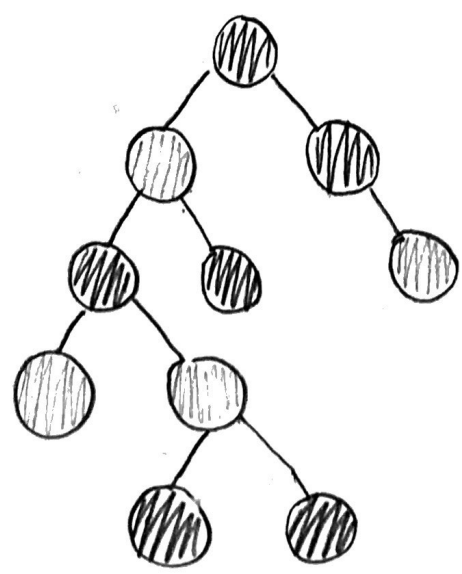


Q3  
a)



e)



unsorted sing sorted sing unsorted doub sorted doub

Search	$O(n)$	$O(n)$	$O(n)$	$O(n)$
Insert	$O(1)$	$O(n)$	$O(1)$	$O(n)$
delete	$O(n)$	$O(n)$	$O(1)$	$O(1)$
Successor	$O(1)$	$O(1)$	$O(1)$	$O(1)$
predecessor	$O(n)$	$O(n)$	$O(1)$	$O(1)$
min	$O(n)$	$O(1)$	$O(n)$	$O(1)$
max	$O(n)$	$O(n)$	$O(n)$	$O(1)$

- \* Search requires traversing every #, sorted double could be  $O(\frac{n}{2})$  max
- \* Inserting unsorted could just put element at end, sorted requires traversal for the correct spot to keep it sorted
- \* you'd have to traverse the list for node's previous node for single before deleting, you'd have the previous with dll
- \* Finding the next element would be  $O(1)$  for any linked list
- \* you'd need to traverse the dll to find previous element, dll has previous pointer so  $O(1)$
- \* min/max would be  $O(1)$  for sorted but  $O(n)$  for unsorted