

- A) It is a sort method, it should print the array in order: 1, 2, 3, 5, 6, 7, 8, 9
- B)  $O(n^2)$ , at each element in the array, there is a for loop that has potential duration of  $n$ . so from there  $n * n = n^2$
- C) Ideally my program would run  $\log n$  yet if the first element is the root of my tree then I end up just traversing the tree to the right until I reach or pass the element I'm looking for which is worse case scenario of  $O(n)$ . For it to be  $\log n$  I'd make a middle value the root node so that it's now divided the search into 2 right away.
- D) Also in order to get the correct output I could only think to remove the code that traverses the left side of the tree since there are no negative values in the array we're operating with and my root is the first element of the array when utilizing `makeTree()`, — I was struggling keeping that code from subtracting a value from the index when the desired value had been passed when traversing to the right.