Method	ArrayList Runtime	LinkedList Runtime	Explanation
Boolean add(t element)	O(1)	O(n)	Array list can simply place the new element, while linked list must iterate over itself to get to the correct index
Boolean add(int index, t element)	O(n)	O(n)	While array list can go to the index without iteration and replace it, it still must iterate over the remaining items to push them backward in the list. Meanwhile linked list must iterate over all items before the add to get to the desired index, but once there removes without further iteration
Void clear()	O(1)	O(1)	Both methods don't have to iterate, but will simply create new objects, similar to their constructors
Boolean contains(T element)	O(n)	O(n)	Both methods have to check all elements in their lists to look for a match with element
T get(int index)	O(1)	O(n)	Array can simply return the item without iteration, while linked list must iterate through to get to the desired index
Int indexOf(T element)	O(n)	O(n)	Both methods must check each element in the list until a match for T is found
Boolean isEmpty()	O(1)	O(1)	Both methods keep a size variable, which will be zero if the list is empty, so a simple check is made
Int lastIndexOf(T element)	O(n)	O(n)	Both methods must iterate through their entire list, running a comparison on each item
T set(int index, T element)	O(1)	O(n)	Array list can simply remove and replace at a given index, no searching required, whereas linked list must iterate through nodes to get to the desired element before it can remove and replace
Int size()	O(1)	O(1)	Both classes keep a variable for size, so both methods simply return this variable
Void sort()	O(n^2)	O(n^2)	Both methods use a selection sort, which requires a nested for loop, meaning both are O(n^2)
Boolean remove(T element)	O(n)	O(n)	Array list must iterate until it finds a matching element, then continue to iterate over the remaining items to push them forward in the list. Meanwhile linked list must iterate over all items before finding a matching element, but once there removes without further iteration

T remove(int index)	O(n)	O(n)	While array list can go to the index without iteration and remove it, it still must iterate over the remaining items to push them forward in the list. Meanwhile linked list must iterate over all items before the remove to get to the desired index, but once there removes without further iteration