1. Write a method that takes a linked list as an argument and removes every other element from it. It should mutate the list, so will be a void function. You can verify your answer by writing the code (10 pts)

```
static void removeEveryOther(LinkedList<String> list) {
        for (Iterator<String> iter = list.iterator(); iter.hasNext(); iter.next()) {
                iter.next();
                iter.remove();
        }
}
```

2. Say we want to sort a list of n items. Which of the data structures that we studied could you insert all n items into and then remove them in order and have the data come out sorted, and it take O(n log n) total time? Explain your answer. (5 pts)

   We could use a HashSet. Insertion is O(log n) for each of n insertions.

3. Insert, in this order, the Strings "exam", "two", "tuesday" into a HashSet first, then a TreeSet, and then print each set (each class has a toString() method). Show the outputs and explain they are different (4 pts)

   [two, tuesday, exam]
   [exam, tuesday, two]
   The HashSet output is neither sorted, nor in the order it was input, but in the order that the hashcodes of the inputs appear. The TreeSet output is sorted.