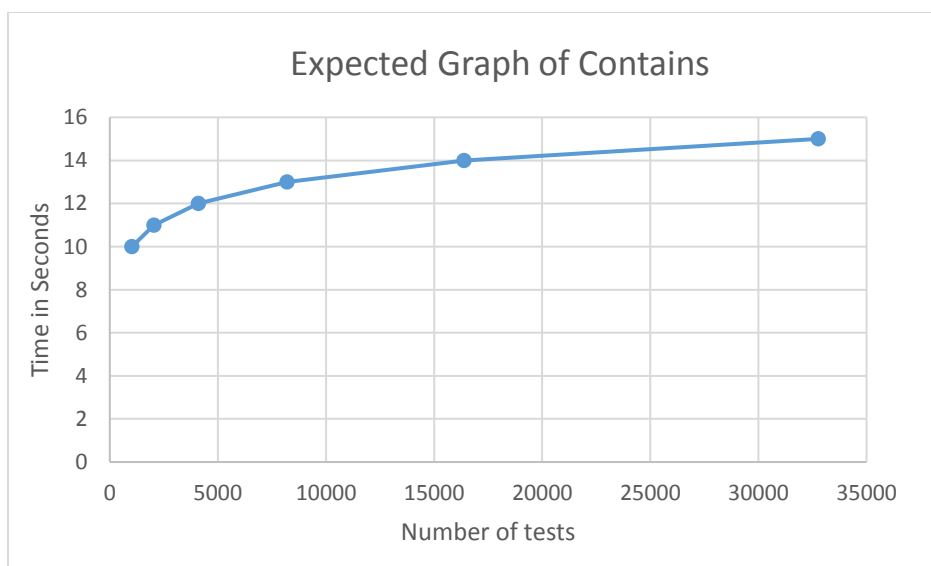
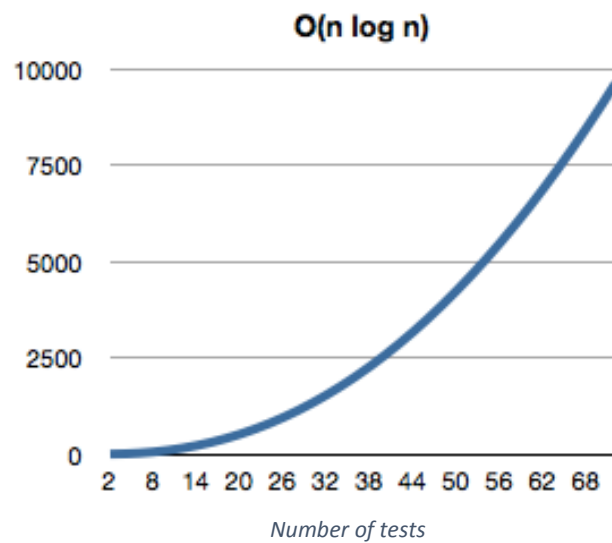


1. My programming partner is Adrian Bollerslev. He submitted the code.
2. I would say we switched roles occasionally throughout the assignment, although he did have a good portion of the methods completed prior to our first meeting. I believe we should have met before to more evenly share the work, but am satisfied with how the work distribution turned out.
3. He was very helpful and knowledgeable about programming and very good to work with. I would work with him again.
4. I believe the programming would have been much easier as array list already has many of the methods that we created in our binary search class. Thus increasing efficiency because The array List automatically updates size. In addition, binary search has a method found there which is what we made in the assignment greatly reducing the amount of work and time we took doing it.
5. I believe the big-O behavior of the set is  $\log N$ . This is because for each loop, the size of the data available is halved. This results in it having a  $\log N$  behavior, as we discussed in class.
6. Yes, they match the idea thought of in question five closely. Because time available was limited however, we were not able to produce direct results and had to result to a manual visual representation of what our data would have produced. Had we enough time to provide such data. The graph of contains seen here would show to be very similar to that from our results. Hypothetically would slight variation due to processes and computer capacity.



7. For the add function found in our binarySearchSet the complexity should be to show a  $n + \log N$  complexity. Again, because we were unable to produce relevant graph results from our program we manually came up with the idealized graph that would show the average graph of the add method in our class.



8. We spent approximately 14 hours on this assignment.