

Keanu interone
Analysis assignment 3

- 1.) My partner was Jeremy Anderson, and I will be submitting the code.
- 2.) We switched roles every other hour or so.
- 3.) He was a great partner again, and I do plan on working with him again.
- 4.) All we would need to do, would be to set the Java List to hold objects of type E, then we could just use all of Java List's methods to add, remove and see if it contains something. It would be more efficient because we wouldn't need to code the add and remove methods, but we would only need to implement our own binary search method that the add, remove, and contains would use.
- 5.) I expect it to be logarithmic, because it is using a binary search.
- 6.) Yes because the plot resemble a logarithmic curve.
- 7.) The average time it took to add a number in a array of a million elements was about 480 nano seconds. The worst case scenario to find where an element should be added would be $\log n$, because that would be the amount of comparisons binary search would need to make to find its position at the end of the array.
- 8.) we spent about 7 hours working together.

