

CSci 3501 Assignment 2
Due Monday, Sept. 18 in class

Problem 1. (15 points) Exercise 2-2 p. 38.

Problem 2. (15 points)

- Write insertion sort in pseudocode as a recursive procedure.
- Prove its correctness by induction (you may use correctness of the loop without a proof).
- Write down the recurrence for the running time of your insertion sort (similarly to what we did for quicksort).
- Prove that the complexity of your algorithm is $O(n^2)$ by drawing the diagram of function calls and summing up the running times for all levels (similarly to what we did in class for quicksort).