Problem Set 2A—NOT Due Don't Turn in

(20) Problem 1. Problem 15.3-5 (p. 295).

(25) Problem 2. Problem 18-2 (p.295)

(25) Problem 3. What kind of access pattern is likely to be the worst for splay trees? What would you expect the total time for a sequence of n_2 accesses to be using this pattern? (you need not give an exact answer).

(25) Problem 4. Consider the problem of deleting an element from a 2D range tree. Suppose you are given a point (x, y) and want to delete it. Describe the deletion process and give the worst case run time of your solution.

You need not worry about rebalancing the tree, and you can assume all data is stored in the leaves. Be sure to consider what to do when an internal node has a value matching that of the deleted item.

(20) Problem 5. Modify the DP approach of problem 5c of PS2 to solve the scheduling problem using $O(W + n)$ space.