CSCI-1200 Data Structures — Spring 2013
Lab 10 — Sets

Checkpoint 1

For the first checkpoint, we will explore the implementation of the `ds_set` class, along with the use of recursive functions to manipulate binary search trees. Download and examine the files:

http://www.cs.rpi.edu/academics/courses/spring13/ds/labs/10_sets/ds_set.h
http://www.cs.rpi.edu/academics/courses/spring13/ds/labs/10_sets/test_ds_set.cpp

The implementation of `find` provided in `ds_set.h` is recursive. Implement and test a non-recursive replacement for this function.

To complete this checkpoint: Show one of the TAs your new code. Be prepared to discuss the running time for the two different versions of `find` for various inputs.

Checkpoint 2

The implementation of the copy constructor and the assignment operator is not yet complete because each depends on a private member function called `copy_tree`, the body of which has not yet been written. Write `copy_tree` and then test to see if it works by "uncommenting" the appropriate code from the main function.

To complete this checkpoint: Show one of the TAs your new code and some new test cases you've written to exercise the copy constructor and the assignment operator.