HW4:

3.

***13.1-5***

Show that the longest simple path from a node x in a red-black tree to a descendant leaf has length at most twice that of the shortest simple path from node x to a descendant leaf.

5.

***13.3-2***

Show the red-black trees that result after successively inserting the keys 41; 38; 31; 12; 19; 8 into an initially empty red-black tree.

6.

***13.4-3***

In Exercise 13.3-2, you found the red-black tree that results from successively inserting the keys 41; 38; 31; 12; 19; 8 into an initially empty tree. Now show the red-black trees that result from the successive deletion of the keys in the order 8; 12; 19; 31; 38; 41.