

CS5114 Spring 2010 Homework Assignment 8
Due Thursday, March 25 at 11:00pm
50 points

1. Manber 7.101

2. Manber 7.110

3. When two trees are joined by the UNION/FIND algorithm (Section 4.5), the weighted union rule says to make the root of tree with the smaller number of nodes point to the root of the tree with the greater number of nodes. Another alternative would be to have the root of the tree whose depth is less point to the root of the tree whose depth is greater.

Analyze and quantify the difference between these two approaches in terms of the average depth of a node in the tree and the worst depth of a node in the tree for these two rules.