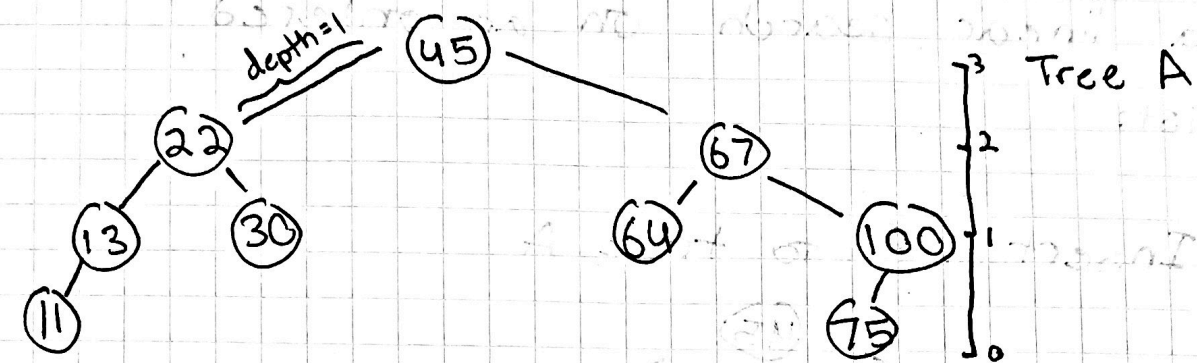


Week 4 Worksheet 2 Philip Warton

1. Add the #'s to a BST.

45, 67, 22, 100, 75, 13, 11, 64, 30



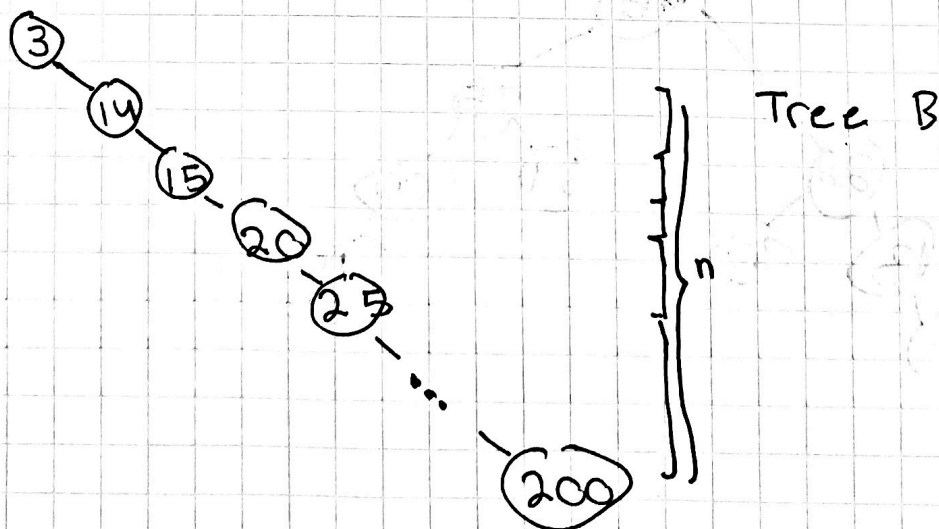
2. What is the height of A?

The height of A is 3.

The depth of 22 is 1.

3. The height of 22's subtree is 2.

3. Add #'s to BST: 3, 14, 15, 20, 25, 30, 33, 62, 200

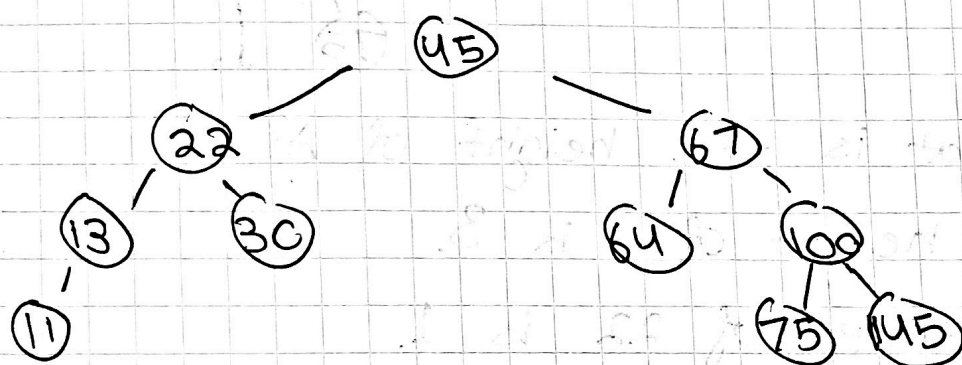


4. Tree B is not balanced because the left and right subtrees of 3

differ in height by more than 1.

To search tree B takes  $O(n)$  time because it is essentially a linear search on an ordered list.

5. Insert 145 to tree A



6. Remove 67

