1. For the set of keys {1, 4, 5, 10,16,17,21}, draw binary search trees of height 2, 3, 4, 5 and 6. (12.1-1)
2. Show that if a node in a binary search tree has two children, then its successor has no left child and its predecessor has no right child.(12.2-5)
3. We can sort a given set of n numbers by first building a binary search tree containing these numbers (using TREE-INSERT repeatedly to insert the numbers one by one) and then printing the numbers by an inorder tree walk. What are the worst-case and best-case running times for this sorting algorithm?(12.3-3)