Questions. Tutorial 3.

1. Given the elements [1,2,...,7] and the complete binary tree T with 7 nodes, label the nodes so that the preorder, inorder and postorder traversals produce the sequence 1,2,...,7 in that order.

2. Consider a binary tree with labels such that the postorder traversal of the tree lists the elements in increasing order. Let us call such a tree a post-order search tree. Describe how you will do search, min, max, insert and delete on this tree. Please write pseudo-code.

3. Construct the BST tree T whose post-order traversal is 1 3 5 4 2 7 8 6. For this tree delete the element 4 in two ways - by using its predecessor and its successor. Display these trees.

4. Given a BST T and an element a, the task is to delete all elements b<a from T. Write pseudocode to do this. How much time does your algorithm take?