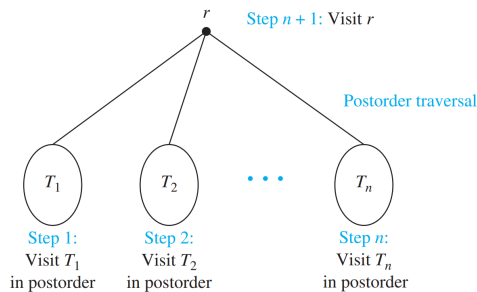
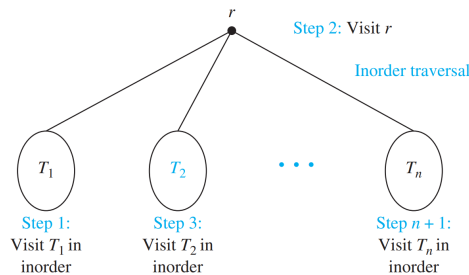
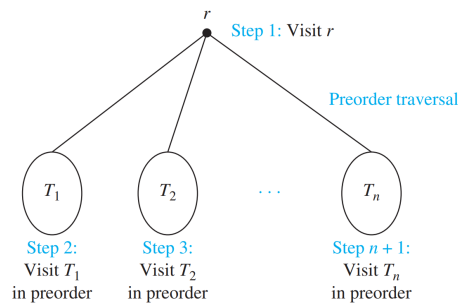
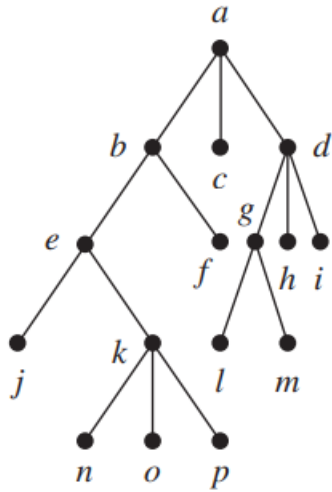


11 Trees

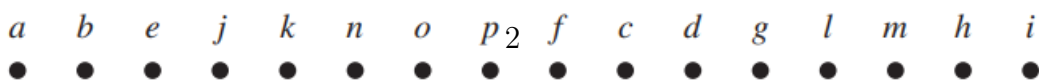
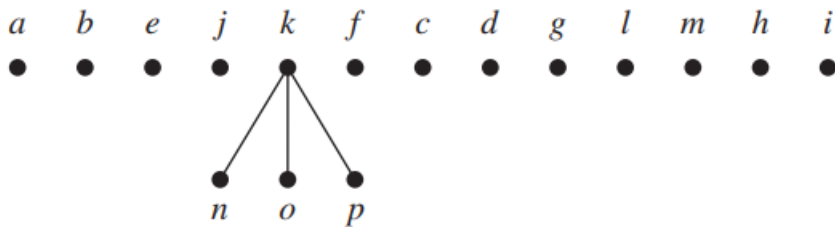
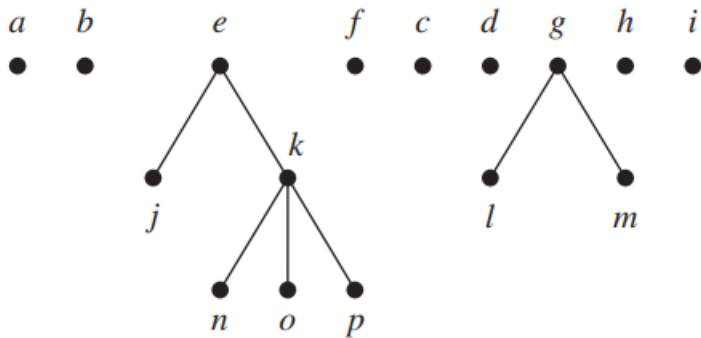
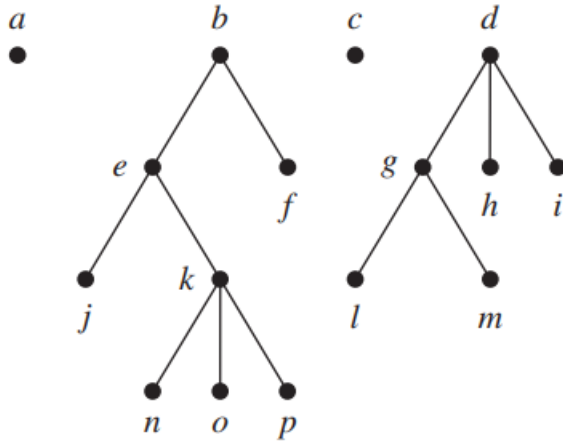
11.3 Tree Traversal

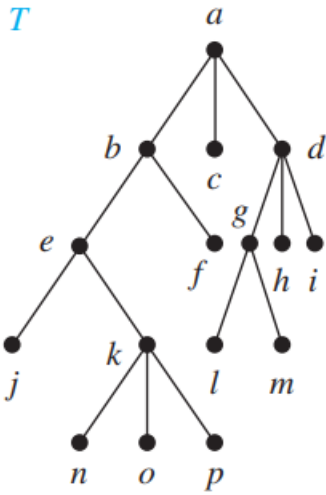
1. A Traversal Algorithm is a procedure for systematically visiting every vertex of an ordered rooted tree, which can be done in 3 ways: preorder traversal, inorder traversal, and postorder traversal
2. Let T be an ordered rooted tree with root r . If T consists only of r , then r is the preorder traversal of T . Otherwise, suppose that T_1, T_2, \dots, T_n are the subtrees at r from left to right in T . The preorder traversal begins by visiting r and then traversing T_1 in preorder, then T_2 in preorder, and so on, until T_n is traversed in preorder. Similarly for inorder traversal and postorder traversal



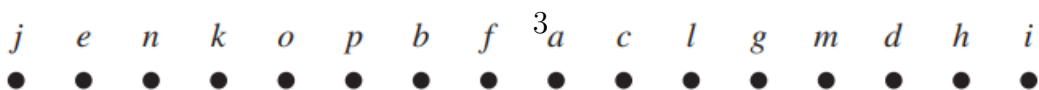
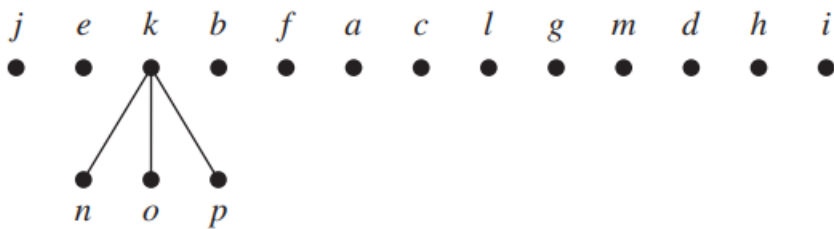
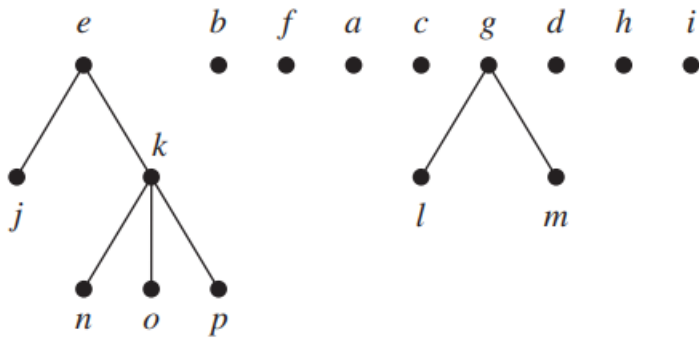
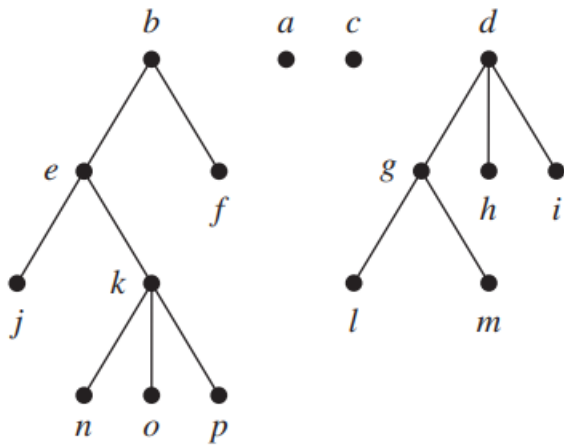


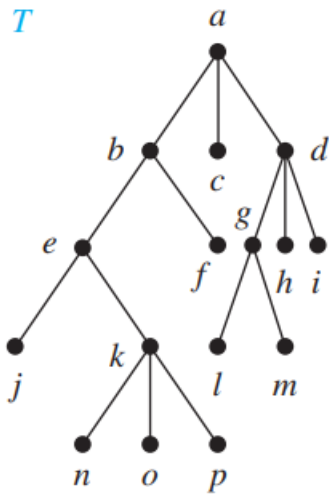
Preorder traversal: Visit root, visit subtrees left to right





Inorder traversal: Visit leftmost subtree, visit root, visit other subtrees left to right





Postorder traversal: Visit subtrees left to right; visit root

