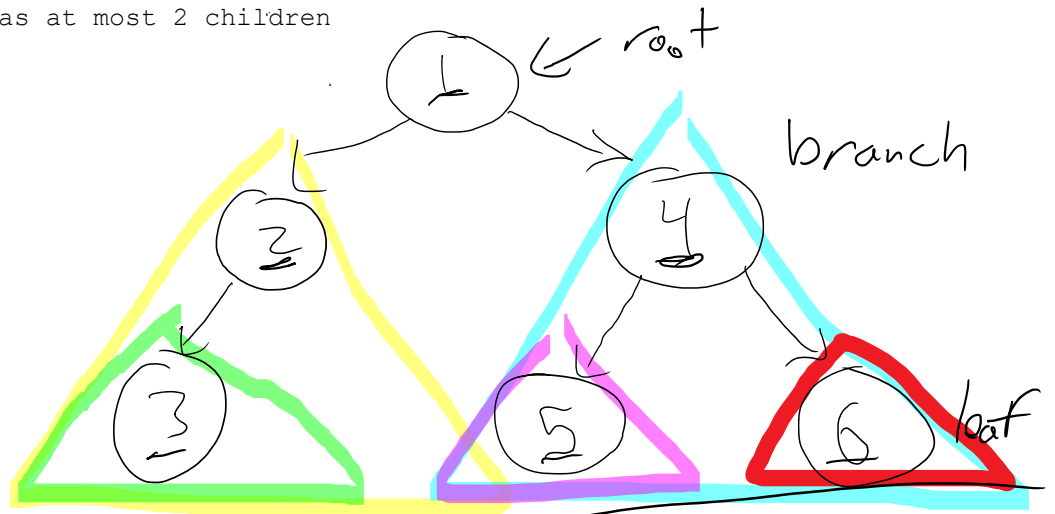


## 8-3: Binary Trees I

Definition: A directed acyclic structure of nodes, where each node has at most 2 children

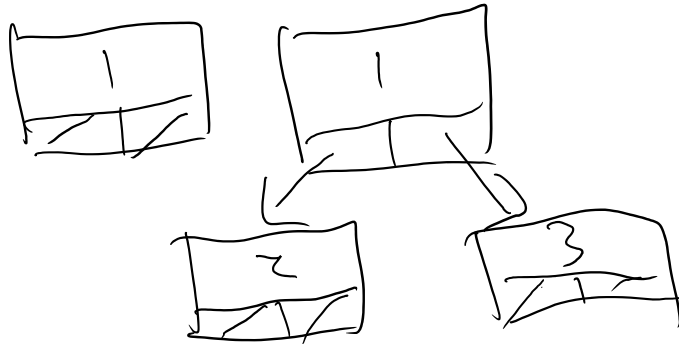
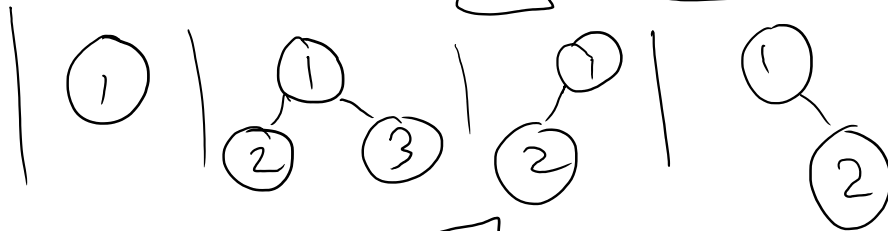


Recursive Definition of a tree:

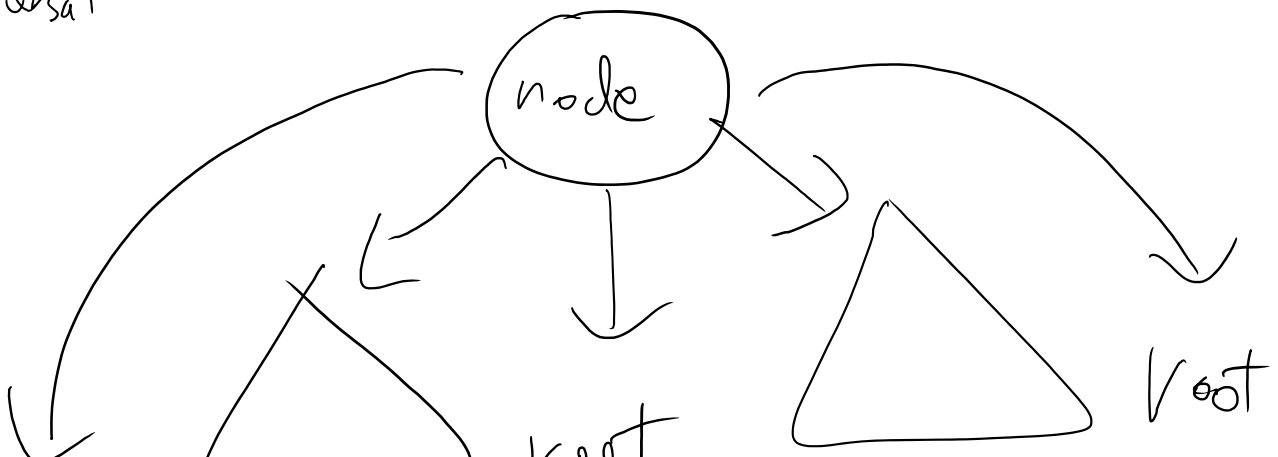
- Empty tree
- A root node, holding data, a left subtree, and a right subtree



<empty>

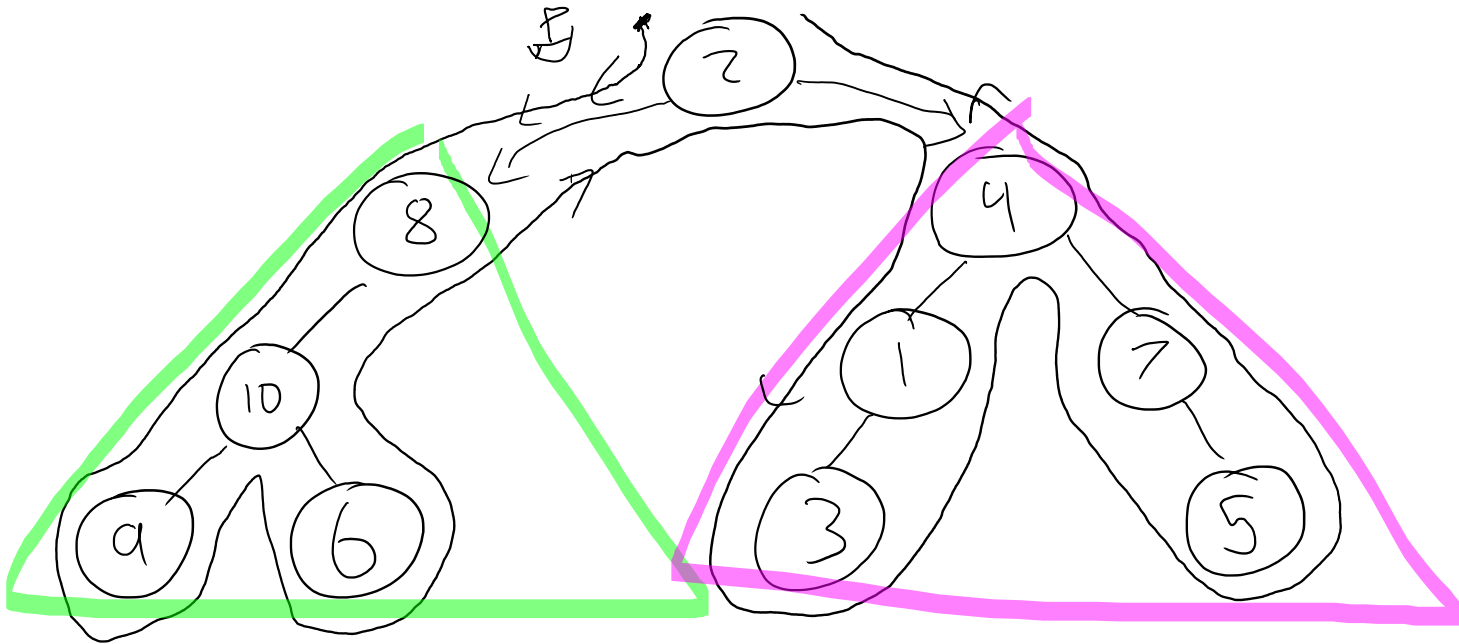


Traversal:





preorder: root, left, right  
 inorder: left, root, right  
 postorder: left, right, root



preorder: 2 8 10 9 6 4 1 3 7 5  
           root left      right  
 inorder: 9 10 6 8 2 3 1 4 7 5  
           left root    right  
 postorder: 9 6 10 8 3 1 5 7 4 2  
             left      right root

