

Data Structures HW3

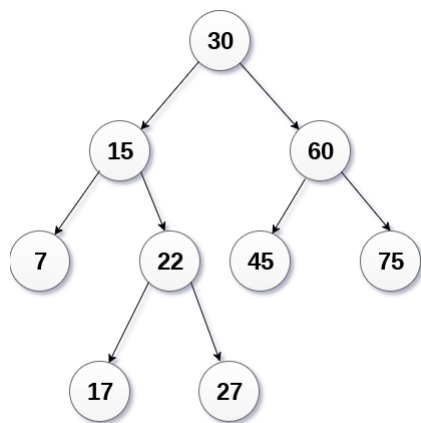
Trees And Traversals

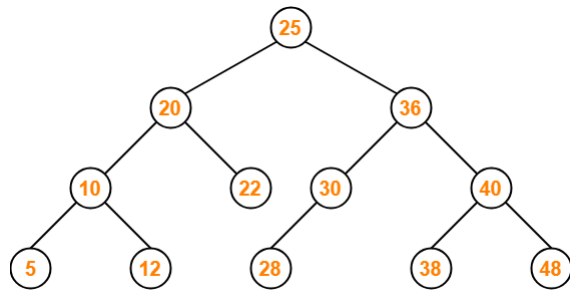
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Problem 1 : use a binary tree as an example of why each of the sentences below are wrong.

1. every binary tree is either complete or full.
2. every complete binary tree is also a full binary tree.
3. every full binary tree is also a complete binary tree.
4. no binary tree is both complete and full.

Problem 2 : Write the DFS , BFS, In-Order, Pre-Order and Post-Order traversal of each of the trees below.





Problem 3 : construct a Binary Search tree using the nodes listed below in the order given, and write the appropriate in-order , pre-order and post-order traversal of each tree.

1. 12, 15, 3, 35, 21, 42, 14.
2. 70, 11, 47, 81, 20, 61, 10, 12, 13, 62.