

Data Structure HW3 - part I
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1. For a k-ary tree with height h, the upper bound for the maximum number of leaves is k^h . The total number of nodes in a perfect k-ary tree is

$$1+k+k^2+\dots+k^h = [k^{(h+1)}-1]/(k-1)$$

2. Inorder (left, root, right): H D I B E A F C G

Preorder (root, left, right): A B D H I E C F G

Postorder (left, right, root): H D I E B F C G A

Level-order traversal: [[A], [B,C], [D,E,F,G], [H,I]]

3.

