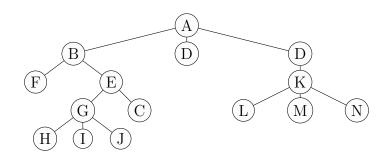
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- 1. List the members of your group below. Underline your name.
- 2. Write the *depth* of each node in the following tree to the immediate left of the corresponding circle. Similarly, write the *height* of each node to its right.



- 3. List the nodes of the tree of Question 2 in
 - (a) preorder:
 - (b) postorder:
 - (c) level-order:
- 4. Present the *linear representation* of the tree of Question 2 using the method described in class.

5. Using the usual graphical notation, depict the tree whose linear representation is

(A, ((B, ((H, ((J, ()))), (I, ()))), (C, ((E, ((G, ()))), (F, ()))), (D, ())))

- 6. Draw box-and-arrow diagrams of
 - (a) the linked list (3, 1, 4, 1, 5, 9) and
 - (b) the leftmost child-right sibling encoding of the tree in Question 2.

7. Represent all nonisomorphic labeled binary trees over the n nodes [n] = {1, 2, 3, ..., n} for n = 0, 1, 2, 3, ... (as high as you can manage).
List the nodes of each tree by *inorder traversal*.

- 8. Provide an algorithm to systematically generate all the trees from Question 7. Explain why your algorithm is correct.
- 9. Quantify the running time of your algorithm analytically.
- 10. [informal homework] Implement your algorithm and analyze its performance experimentally.