Sarah O. Rebulado CpE 2-2

Short Quiz on Trees

6. Children of node 16 – nodes: 13, 6, 60

7. Parent of node 1 – node: 7

8. Siblings of 23 – none

9. Ancestors of 9 – nodes: 22, 7, 12, 4

10. Descendants of 16 – nodes: 13, 6, 60, 23, 21

11. Leaves – nodes: 22, 16, 7

12. Non-leaves – 23, 21, 20, 9, 1

13. Depth of node 4 – 1

14. Degree of the tree – 3

15. Height of the tree – 4

16. Weight of the tree. – 5

17. Is the tree a binary tree? – Yes

18. Removing 6, is the tree a full binary tree? - Yes

19. Removing 6, is the tree a complete binary tree? – No

20. Is a full binary tree complete? – No

21. Is a complete binary tree full? – Yes

22. How many leaves does a complete n-ary tree of height h have? – 2

23. What is the height of a complete n-ary tree with m leaves? – 2

24. What is the number of internal nodes of a n-ary tree of height h? – 2

25. What is the total number of nodes a complete n-ary tree of height h have? – 2