

Exercise (Trees)

Answers:

1. Three properties of a tree
 - Have nodes, branches and leaves
 - Can be classified by its weight, height, depth or degree
 - A tree is forest but a forest is not a tree
2. Yes
3. Roots
4. 1
5. Yes
6. Nodes 13, 6, 60
7. Node 7
8. None
9. Nodes 4, 12, 7, 22
10. Node 22
11. Nodes 23, 21, 20, 9, 1, 6
12. Nodes 22, 16, 7, 12, 4, 13, 60
13. Depth 3
14. Degree 3
15. Height 4
16. 5
17. No
18. No
19. No
20. No
21. Yes
22. n^h
23. $\log_n m$
24. $\frac{n-1}{n-1}$
25. $n^n - 1$