



Name _____ Class _____ Date _____

AFTER THIS WORKSHEET YOU CAN

- ✓ Use edges = vertices - 1. ✓ Find vertices from the number of edges. ✓ Find the depth of a node.
 ✓ Find the height of a tree.

Section A • Concept Check • BEGINNER $4 \times 1 = 4$ _____

- 1 A tree has 15 vertices. The number of edges is:
☐ A. 14 ☐ B. 15 ☐ C. 16 ☐ D. 30
- 2 A tree has 9 edges. The number of vertices is:
☐ A. 10 ☐ B. 9 ☐ C. 8 ☐ D. 18
- 3 Root $R \rightarrow A \rightarrow B \rightarrow C$. The depth of C is:
☐ A. 3 ☐ B. 4 ☐ C. 2 ☐ D. 0
- 4 The height of that tree is:
☐ A. 3 ☐ B. 4 ☐ C. 2 ☐ D. 1

Section B • Problem Solving • INTERMEDIATE $2 + 3 \times 3 = 11$ _____

- 5 A tree with n vertices has _____ edges.
- 6 A tree with 9 edges has _____ vertices.
- 7 A tree has 15 vertices. Find the number of edges.

- 8 A tree has 9 edges. Find the number of vertices.

- 9 Root R has child A, A has child B, B has child C. Find the depth of C.

Section C • Challenge • CHALLENGE 5 _____

- 10 Using the same tree, find the height of the tree.

Reflection — the most useful thing I learned: _____

A ___/4 B ___/11 C ___/5 **Total ___/20**

Teacher's Signature _____

Parent's Signature _____

✂ ANSWER KEY — FOLD OR CUT BEFORE HANDING OUT

1-A 2-A 3-A 4-A | 5 n - 1 6 10 7 = 14 8 = 10 9 = 3 | 10 = 3