

BINARY TREES

1. Given the following order of data from an input file, draw the resulting ordered binary tree:

54 32 21 88 3 99 17 77 82 29 44 66

Define the following terms and describe examples from the above tree.

2. Parent -

3. Child -

4. Root node -

5. Leaf -

6. Level -

7. Subtree -

8. Edge -

9. Explain how the order of the incoming data affects the shape of a binary tree. Include in your explanation a discussion of the best and worst case scenario. Use the back side to answer this problem.