

Practice Quiz 9

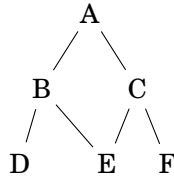
CSCI 136: Spring 2022

Your name: _____

This week's quizzes cover readings, handouts, labs, and lecture materials up to and including April 18th.

Answer the following questions as practice for your graded quiz on Friday.

1. Is the structure shown below a tree? Please explain why or why not.



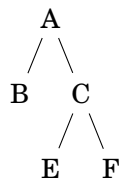
Your answer: No. The node E has two parents, whereas in a tree, a node can only have one or zero parents.

2. Consider the method shown below that recursively prints the contents of a binary tree. This method traverses a binary tree in an order we call a *post-order traversal*. On a non-empty tree, a post-order traversal visits the left child of the root, then it visits the right child of the root, and then finally outputs the content of the root itself. For the base case—an empty tree—the method simply returns.

Post-order traversal code is shown below.

```
public static void <E> postOrderTraverse(BinaryTree<E> tree) {  
    if (tree.isEmpty()) {  
        return;  
    }  
    postOrderTraverse(tree.left());  
    postOrderTraverse(tree.right());  
    System.out.println(tree.value());  
}
```

Please give the order in which the values will be printed for the following tree.



Your answer: B E F C A