Pretty Binary Tree printing

1 Printing a binary tree

The easiest way to print a binary tree is sideways but this is not always easy to read. It would be nicer if the tree printed upright with lines connecting parents and children.

This means a tree might print as follows:

```
      f
     / \
    b   h
   / \  /  \
  a   d g   e
```

or

```
      |    ++----blue---+
     |        |       |
    |    ++pink+++  green
     |        |       |
   red    black
```

2 Extra Credit

You are only allowed to use your textbook, class notes, CS204 files and the Java API. (This means no other internet, no other people, books, etc.). You may also use any material you wrote for a 204 assignment.

Turn in a Binary Tree class that uses this print method. You can copy the remainder of the class from the 204 files. Turn in some test runs that show your algorithm works on full, empty and funny looking trees.

3 Hint

You may want to consider the size or height of each subtree when figuring out how many spaces and underscores to print. You may need to make more than 1 traversal of the tree to accomplish this. You will want to consider pre-, post-, and in-order traversals. You can add code to the Node or Tree classes as you wish.