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CS230 PSet 8 Task 1
Due: 11/21/16 11:59 pm

- 1) In order: IEGACJDFBHK
- 2) Pre order: DEIAGCJBFBKH
- 3) Post order: IGJCAEFHKBD
- 4) Level order: DEBIAFKGCHT
- 5) Computed Links:

```
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22
D E B I A F K _ _ G C _ _ H _ _ _ _ _ _ _ _ J
```

- 6) Stored Links:

| A | B | C | D | E | F | G | H | I | J | K |
|-----|------|------|-----|-----|-------|-------|-------|-------|-------|------|
| 6 2 | 5 10 | -1 9 | 4 1 | 8 0 | -1 -1 | -1 -1 | -1 -1 | -1 -1 | -1 -1 | 7 -1 |

- 7) The runtime of the find operation in the LinkedBinaryTree class is $O(n)$ because it invokes find from BTNode and the worst case scenario is that the method has to check every single node and does not find the target.
- 8) The runtime of the inorder operation in LinkedBinaryTree is $O(n)$ because it relies on the inorder traversal in BTNode, which visits each node exactly once.