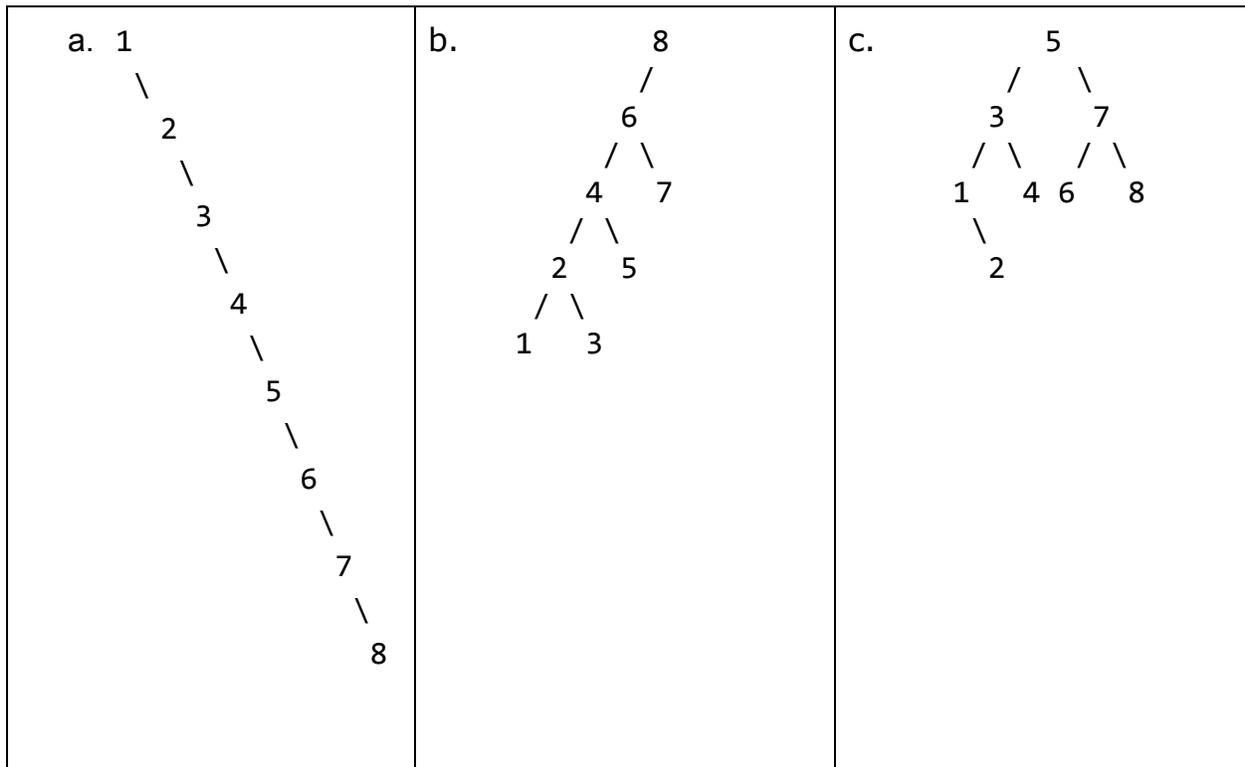


Week 5 Section Solutions

1. Tracing Trees

- a. 1, 2, 3, 4, 5, 6, 7, 8
- b. 8, 6, 4, 2, 1, 3, 5, 7
- c. 5, 7, 3, 8, 1, 2, 4, 6



2. Tracing Heaps

- a. {1, 2, 3, 4, 5, 6, 7, 8}
After dequeuing:
{2, 4, 3, 8, 5, 6, 7}
- b. {1, 2, 3, 7, 4, 6, 5, 8}
After dequeuing:
{2, 4, 3, 7, 8, 6, 5}
- c. {1, 3, 2, 6, 7, 5, 4, 8}
After dequeuing:
{2, 3, 4, 6, 7, 5, 8}

3. Height (Height on CodeStepByStep)

```
int heightHelper(BinaryTreeNode* node) {
    if (node == NULL) {
        return 0;
    } else {
        return 1 + max(heightHelper(node->left),
heightHelper(node->right));
    }
}

int BinaryTree::height() const {
    return heightHelper(root);
}
```
