Assignment 10: AVL trees

1. Given a BST, find if it is an AVL tree.

2. Given a graph, find if it is an AVL tree.

3. Given a BST, type of rotation (left/right) and node *k*, perform and verify the rotation at node *k*. Print the nodes through in-order traversal.

4. Given *n* integers, create an AVL tree and print the sequence of nodes traversed through pre-order and post-order methods.

5. Given *n* integers, create an AVL tree. Delete *k* nodes in the order given by the user and print the sequence of nodes of the final tree traversed through pre-order and post-order methods.

6. (OPTIONAL) Given a BST along with color (red/black), find if it is an RB tree.