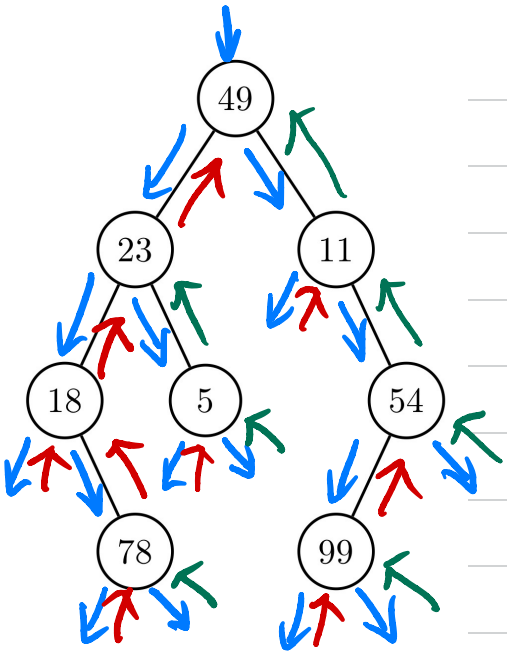

Kate Chavira

i.) [2 pts] List the nodes that are the leaves of the tree.

78, 5, and 99 are the leaves of the tree

ii.) [2 pts] What is the height of the tree?

The height is 3

iii.) [2 pts] List the nodes that are the ancestors of node 18.

node 23 and 49 are ancestors of node 18

iv.) [2 pts] List the nodes that are the descendants of node 23.

18, 5, and 78 are the descendants of node 23

v.) [2 pts] Is this tree a complete tree?

no, its not a complete tree

vi.) [2 pts] List the nodes that are in the right subtree of node 11.

node 23, node 18, node 5, node 78

vii.) [2 pts] List the sequence of nodes (traversal trace) using postorder.

viii.) [2 pts] List the sequence of nodes ('traversal trace) using inorder.

Preorder: 49 23 18 78 5 11 54 99
Inorder: 18 78 23 5 49 11 99 54
PostOrder: 78 18 5 23 99 54 11 49

2. Given the following keys.
43 11 25 88 73 17 123 91 54 49 90 51
i.) [9pts] Draw the resulting binary search tree after inserting the entries (process keys from left to right starting with 43).