Spring 2025 Section B: Advanced Data Structures

3) (5 pts) ALG (AVL Trees)

Insert the following integers into an AVL tree in the given order. Whenever an insertion causes the tree to become unbalanced, rebalance it immediately before proceeding with the next insertion. Continue this process, rebalancing as needed, until all elements have been added. Put a box around the state of the tree after each of the bolded-underlined elements are inserted. (Each of these pictures will be worth 1 point.)

50, 80, <u>70,</u> 99, <u>85</u>, <u>100,</u> <u>95</u> and <u>84</u>