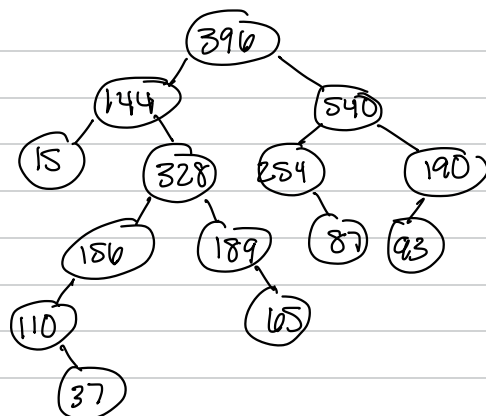


Inorder: left, root, right

TREE \Rightarrow



$$15 + 0 + (2 \times 0) = 15$$

$$21 + 15 + (2 \times 54) = 144$$

$$36 + 0 + (2 \times 37) = 110$$

$$37 + 0 + (2 \times 0) = 37$$

$$46 + 110 + (2 \times 0) = 156$$

$$54 + 156 + (2 \times 59) = 328$$

$$59 + 0 + (2 \times 65) = 189$$

$$65 + 0 + (2 \times 0) = 65$$

$$68 + 144 + (2 \times 92) = 396$$

$$80 + 0 + (2 \times 87) = 254$$

$$87 + 0 + (2 \times 0) = 87$$

$$92 + 254 + (2 \times 97) = 540$$

$$93 + 0 + (2 \times 0) = 93$$

$$97 + 93 + (2 \times 0) = 190$$

2b) No, the values are no longer left < root < right order due to the arithmetic modifications.

2c) No. AVL trees must be height-balance, and this tree wasn't rebalanced - some branches are clearly deeper than others.