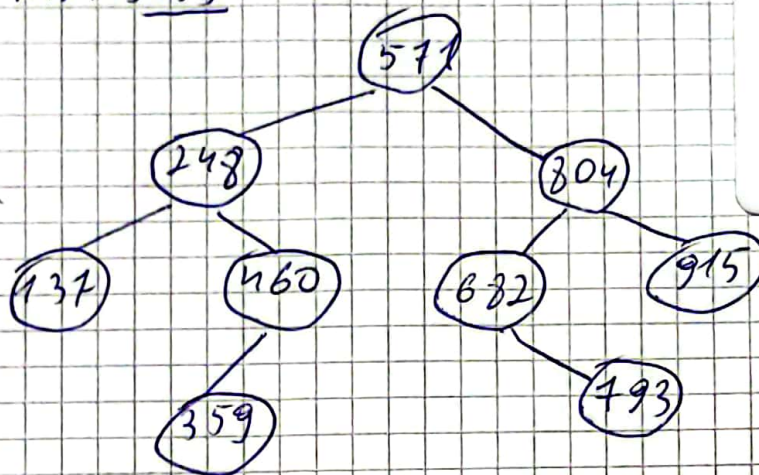


12149099

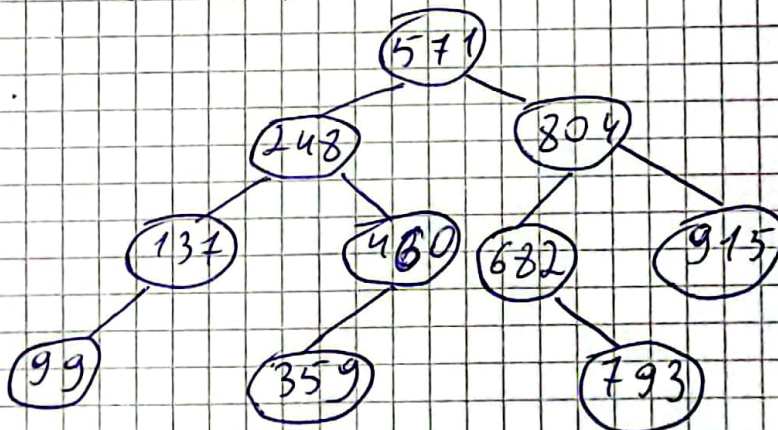


1. Insert 99 into the Binary Search Tree (BST):

$99 \leq 571 \Rightarrow$  ~~consist~~ <sup>belong</sup> look at the left side of BST.

$99 \leq 248 \Rightarrow$  go to the left side again and compare with the next node

$99 \leq 137 \Rightarrow$  99 is a <sup>new</sup> left external node of 137



2. Remove the root node from the BST.

in-order BST:

99 - 137 - 248 - 359 - 460 - ~~571~~ - 682 - 793 - 804 - 915

~~Now, we remove 571~~

Target node  $w(571)$  does not have any external nodes as a child, so we are looking for  $y$  node (682) after  $w$  in in-order. Then, we remove node  $y(682)$  and replace node



w <sup>(521)</sup> with y(632)

So, the new root node is 632

The BST after removal:

