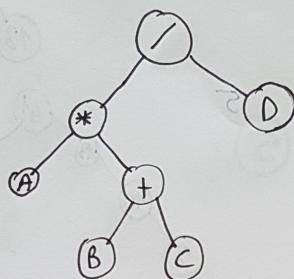


Question 1

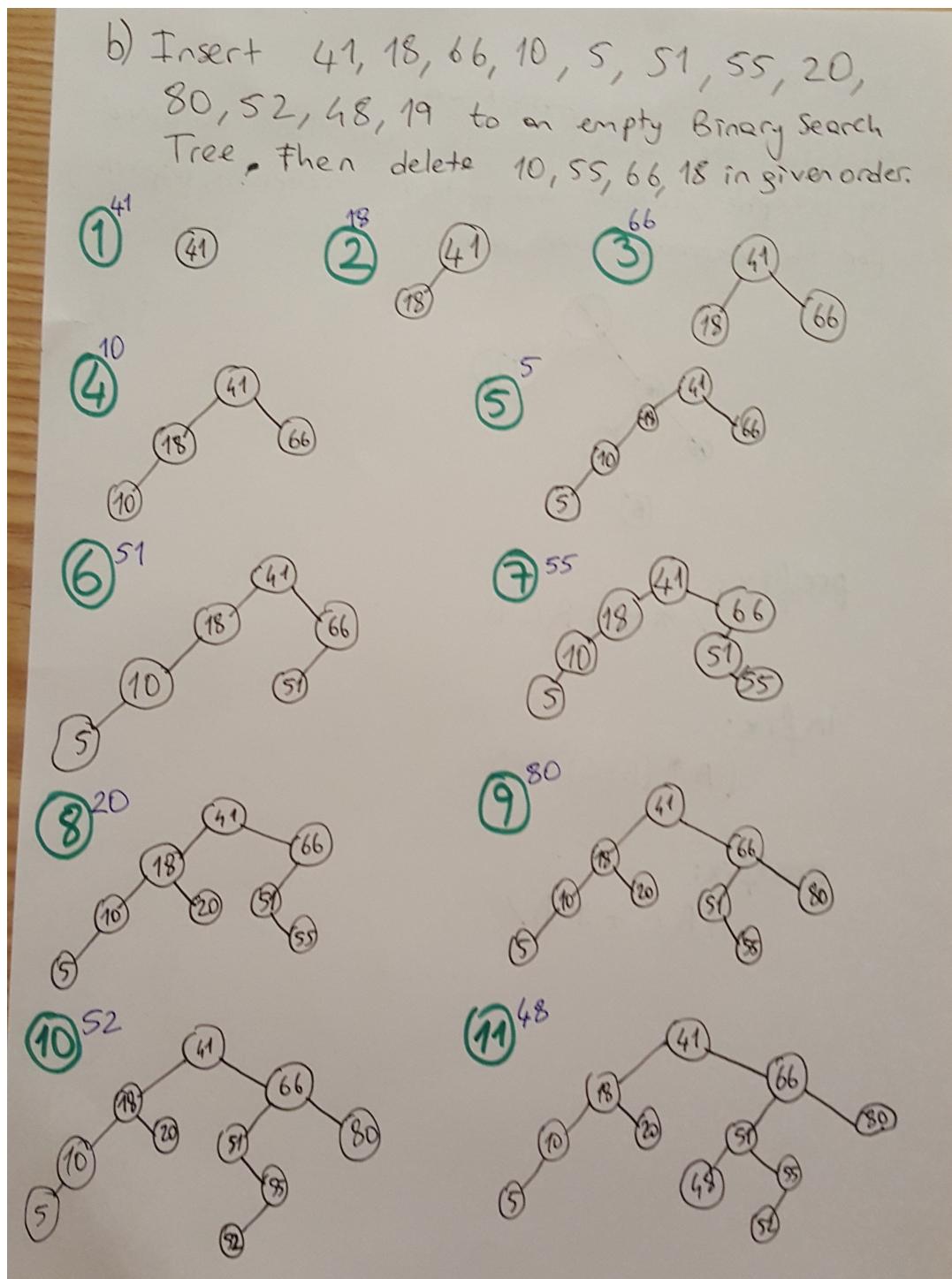
- a) Give the prefix, infix and postfix expressions obtained by preorder, inorder and postorder traversals, respectively for the expression tree below:

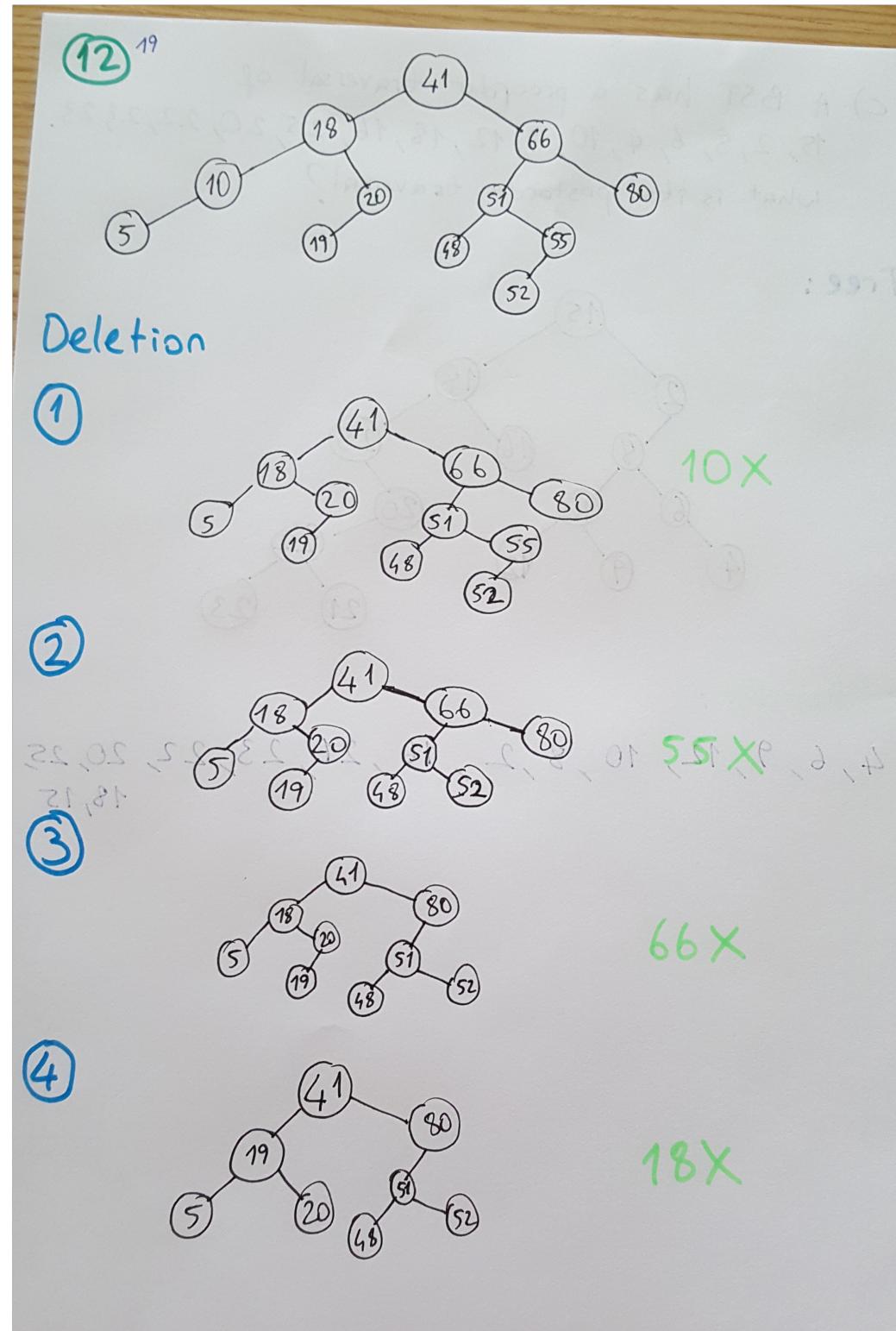


prefix: $/ * A + B C D$

infix: $(A * (B + C)) / D$

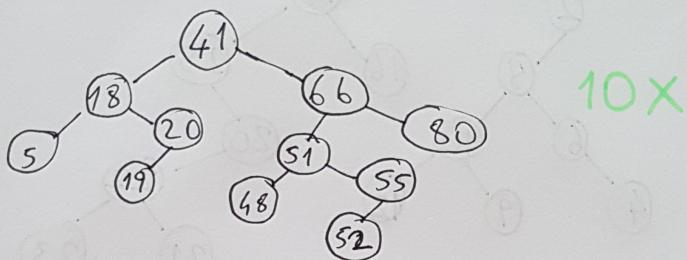
postfix: $A B C + * D /$





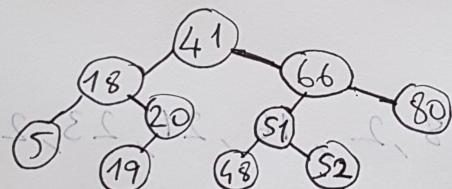
Deletion

①



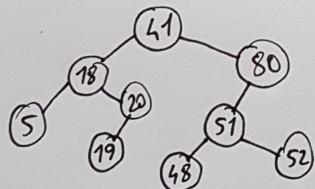
10X

②



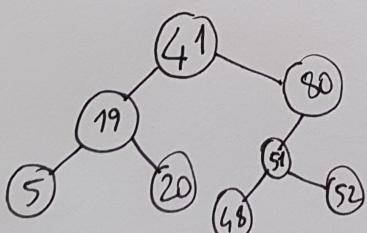
55X

③



66X

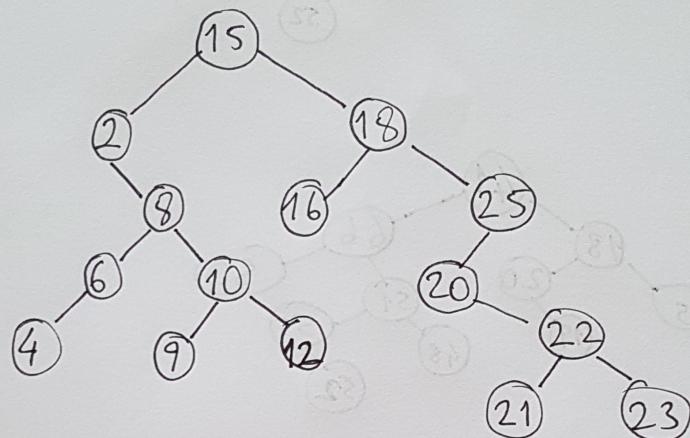
④



18X

c) A BST has a preorder traversal of
15, 2, 8, 6, 4, 10, 9, 12, 18, 16, 25, 20, 22, 21, 23.
What is its postorder traversal?

Tree:



Postorder:

4, 6, 9, 12, 10, 8, 2, 16, 21, 23, 22, 20, 25,
18, 15