

# Homework 10

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B08705034 資管一 施芊羽

1.

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a.

The tree's root is the node with value 60.

b.

The parents of 20 and 70 is the node with value 60.

c.

The children of the node 20 is the nodes 10 and 40.

d.

The sibling of node 70 is the node 20.

e.

The ancestors of 50 are the nodes 40, 20, and 60.

f.

There is no descendant of 10

g.

The leaves are nodes 10, 30, 50, and 70.

2.

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**Preorder:**

60,20,10,40,30,50,70

**Inorder:**

10,20,30,40,50,60,70

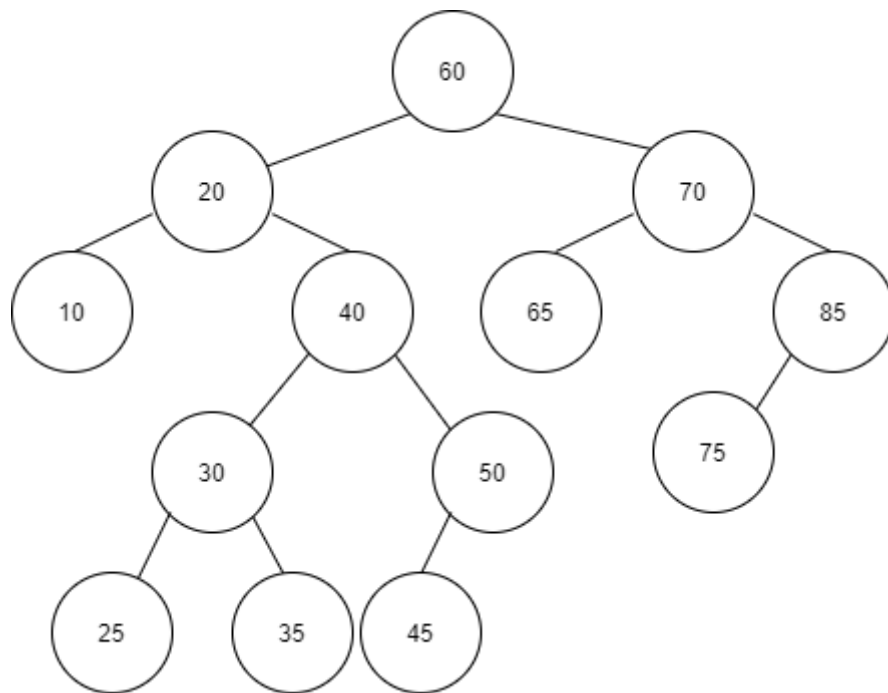
**Postorder:**

10,30,50,40,20,70,60

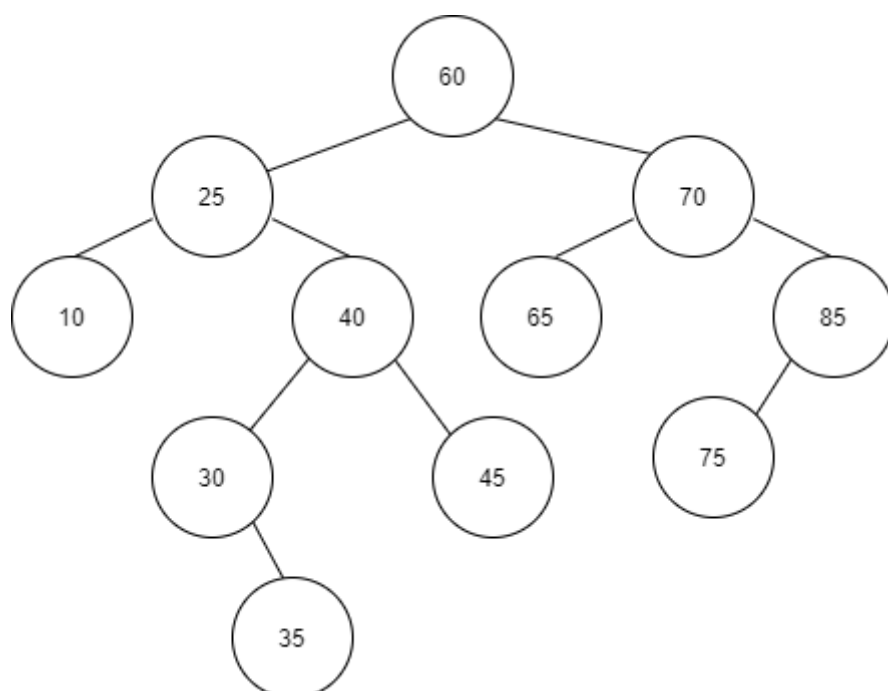
**3.**

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**a.**



**b.**



**4.**

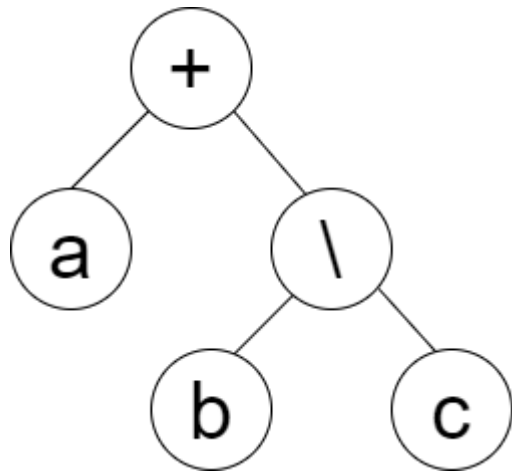
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Inorder traversal algorithm will visit the nodes in ascending order of values stored in nodes of a binary search tree.

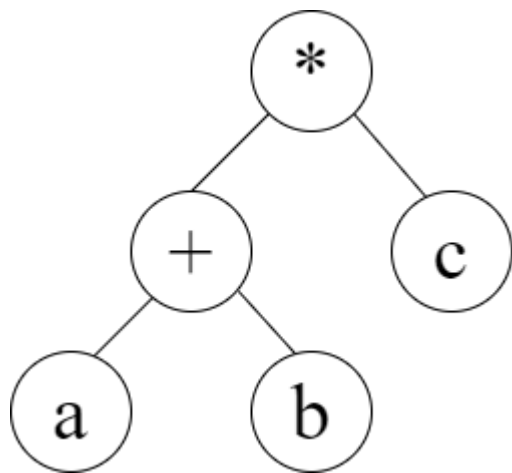
5.

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a.



b.



c.

