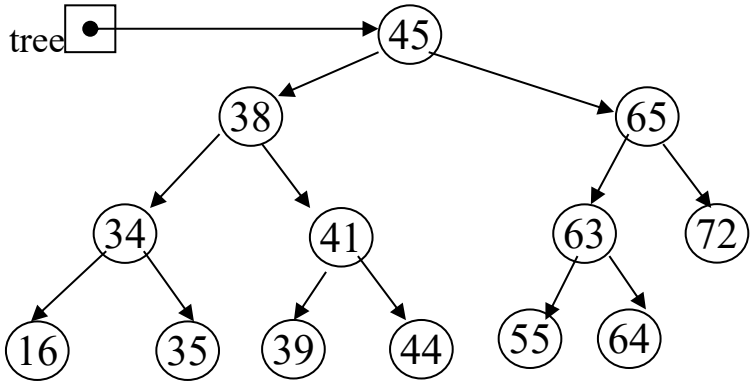
1. Given the following binary tree:



(a) What is the inorder traversal of the tree? LNR

16-> 34->35->38->39 ->41->44 -> 45->55->63->64 ->65->73

(b) What is the preorder traversal of the tree? NLR

45-> 38->34->16->35 ->41->39-> 44->65->63->55 ->64->72

(c) What is the postorder traversal of the tree?

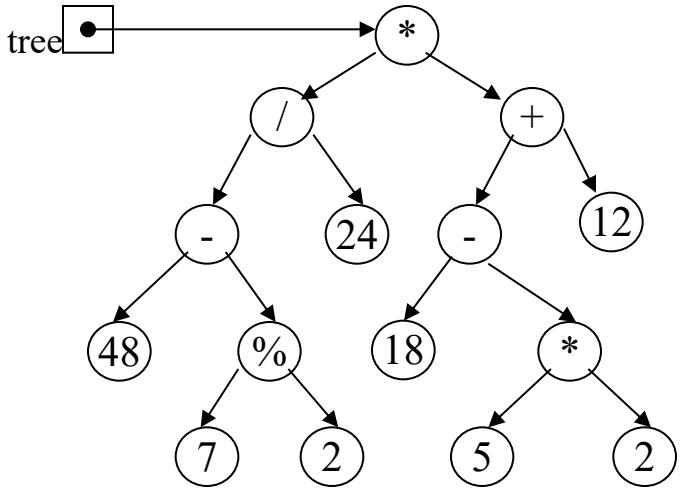
16-> 35->34->38->39 ->44->41-> 38->55->64->63 ->72->65->45

(d) What is the height of the tree? What nodes are on level 2?

- Height: 4
- Nodes on level 2:

+ Carrano : 38, 65. (considering the root to be 1)
+ McAllister : 34,41,63,72 (considering the root to be 0)

2. Given the following binary expression tree:



(a) What is the inorder traversal of the tree?

(((48-(7%2)/24)*((18-(5*2))+12))

(b) What is the postorder traversal of the tree?
48 7 2 % - 24 / 18 5 2 * - 12 + *

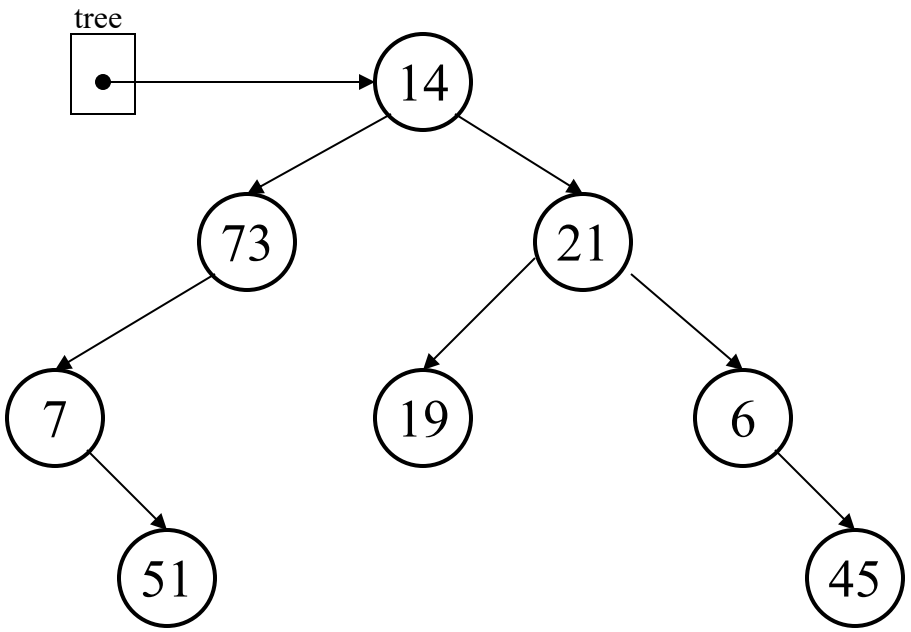
(c) What does it evaluate to if using integer division?
20
(d) What does it evaluate to if using float division?
39.16666666…

3. The elements in a binary tree area to be stored in an array. Each element is a nonnegative int value.

a. What value can you use as a dummy value, if the binary tree is not complete? null

b. Show the contents of the array, given the tree illustrated below

[0]	14
[1]	73
[2]	21
[3]	7
[4]	null
[5]	19
[6]	6
[7]	null
[8]	51
[9]	null
[10]	null
[11]	null
[12]	null
[13]	null
[14]	45



4. Given the array pictured below, draw the binary tree that can be created from its elements.