

### CS-303 Assignment 4

(25 points)

Q1 (15 points) Draw an expression tree corresponding to each of the following:

- a) Inorder traversal is:  $x / y + 3 * b / c$
- b) Postorder traversal is:  $x y z + a b - c * / -$
- c) Preorder traversal is:  $* + a - x y / c d$

Q2 (10 points) Considered the output of a to\_string method below and show the tree that would be built by the following data lines is the binary search tree.

30  
15  
4  
NULL  
NULL  
20  
18  
NULL  
19  
NULL  
NULL  
NULL  
35  
32  
NULL  
NULL  
38  
NULL  
NULL

**Submission guidelines:**

1. Create a solution document (word or pdf) that contains the trees created for Q1 and Q2
2. Upload your solution document to GitHub.
3. Submit the GitHub link on Canvas by due date.