

Programming Assignment Week 14:

1. (150pts) Given a well-balanced algebraic expression (all parentheses given). Construct a corresponding expression syntax tree. (All number or id single digit or letter assumed)

You may use Stack, infixToPostfix, and other programs from Lecture 8.

- Get an infix expression.
- Convert it to postfix.
- Then, use postfix to build an evaluation tree.
- After that, perform infix traversal

Sample Input:

4 + ((7 + 9) * 2)

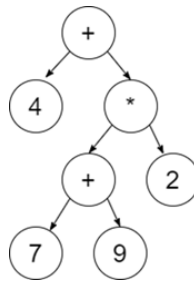


Figure 1: Syntax Tree expected

Sample Output:

Infix: 4 + ((7+9) *2)

Postfix: 479+2*+

Infix Traversal of the Eval-Tree: (4 + ((7 + 9) * 2))