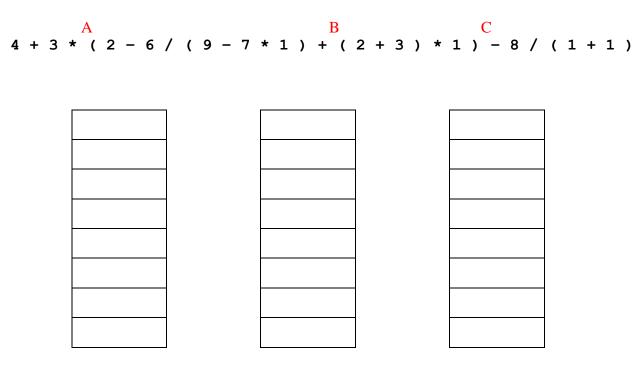
3) (10 pts) ALG (Stack)

Convert the following infix expression to postfix using a stack. Show the contents of the stack at the indicated points (A, B, and C) in the infix expression.



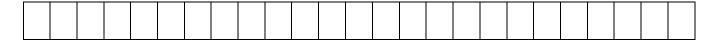
Note: A indicates the location in the expression **AFTER** the multiplication and before the open parenthesis. B indicates the location in the expression **AFTER** the addition and before the open parenthesis. C indicates the location in the expression **AFTER** the close parenthesis and before the subtraction.

В

 \mathbf{C}

Resulting postfix expression:

A



Note: There are exactly the correct number of boxes above. These should be filled with 13 numbers and 12 operators.

Computer Science Foundation Exam

August 26, 2023

Section B

ADVANCED DATA STRUCTURES

NO books, notes, or calculators may be used, and you must work entirely on your own.

Name:				
UCFID:				

Question #	Max Pts	Category	Score
1	10	DSN	
2	10	DSN	
3	5	ALG	
TOTAL	25		

You must do all 3 problems in this section of the exam.

Problems will be graded based on the completeness of the solution steps and <u>not</u> graded based on the answer alone. Credit cannot be given unless all work is shown and is readable. Be complete, yet concise, and above all <u>be neat</u>. For each coding question, assume that all of the necessary includes (stdlib, stdio, math, string) for that particular question have been made.