

3) (5 pts) ALG (Stacks)

Convert the following infix expression to postfix using a stack. Show the contents of the stack at the indicated points (1, 2, and 3) in the infix expression.

$$(\mathbf{A} + \mathbf{B}) - (\mathbf{C} - (\mathbf{D} + \mathbf{E}) / \mathbf{F}) * \mathbf{G}$$

(
-

1

+	
(
-	
(
-	

2

/
-
(
-

3

Resulting postfix expression:

A	B	+	C	D	E	+	F	/	-	G	*	-								
----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	--	--	--	--	--	--	--	--

Grading: 1 point for each stack, 2 points for the whole expression (partial credit allowed.)