3) (5 pts) DSN (Stacks)
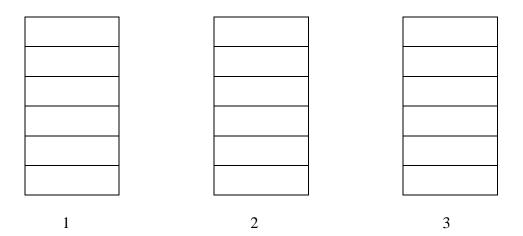
Convert the following infix expression to postfix using a stack. Show the contents of the stack at the indicated points (1, 2, and 3) in the infix expression.

$$\overset{1}{} \qquad \overset{2}{} \qquad \overset{3}{}$$

A * B - C   + (D − ((E   * F) / G))   + H

(1, 2, and 3 refer to the positions after C, after E, and after the closing parentheses respectively.)

Stack 1 (bottom → top): −

Stack 2 (bottom → top): + (− ((

Stack 3 (bottom → top): +

| 1 | 2 | 3 |

Resulting postfix expression:

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