Infix to Prefix – Algorithm

Step 1. Push “)” onto STACK, reverse infix and add “(“ to end of inFix

Step 2. Scan inFix and repeat step 3 to 6 for each element of inFix until the STACK is empty

Step 3. If an operand is encountered add it to preFix

Step 4. If a right parenthesis is encountered push it onto STACK

Step 5. If an operator is encountered then:

a. Repeatedly pop from STACK and add to preFix each operator (on the top of STACK) which has **higher** precedence than the operator.

b. Add operator to STACK

Step 6. If left parenthesis is encountered then

a. Repeatedly pop from the STACK and add to preFix (each operator on top of stack until a right parenthesis is encountered)

b. Remove the right parenthesis

Step 7. Reverse preFix