

An *infix* expression is one in which an operator is positioned between its two operands. A *postfix* expression places the operators after its operands.

Design and implement a calculator application that permits the user to input an infix expression by utilizing a stack. The program should then convert the infix expression to its postfix equivalent, and then evaluate the postfix expression and display the result. The calculator should operate on integer operands using the arithmetic operators +, −, *, and / (see Figure 1.)

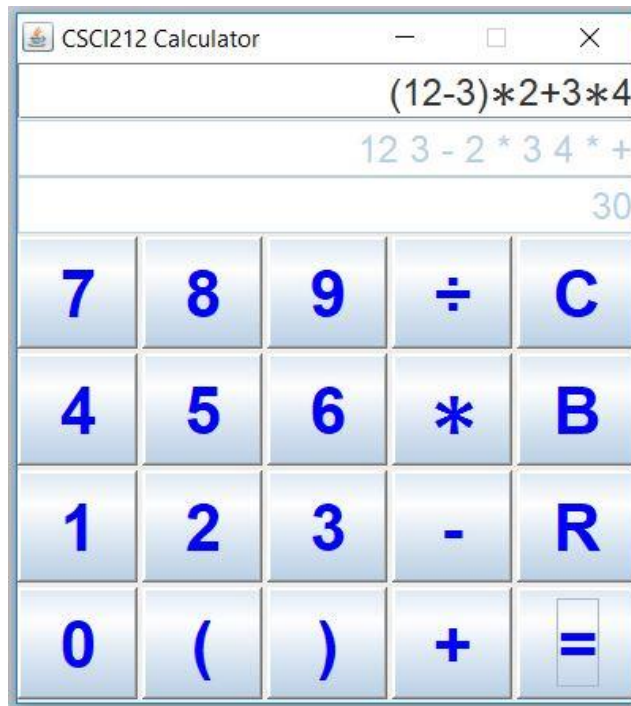


Figure 1 - Infix/Postfix Calculator

Starting code is available in:

<http://venus.cs.qc.cuny.edu/~aabreu/cs212/project2/CalculatorFrame.java>

The Stack class used must be a generic type.

```
public interface StackADT<T> {
    public void push(T d) throws
        StackFullException; public T pop()throws
        StackEmptyException; public T peek()throws
        StackEmptyException; public boolean isFull();
    public boolean isEmpty();
    public int size();
}
```

<http://venus.cs.qc.cuny.edu/~aabreu/cs212/project2/InfixtoPostfix.pdf>