```java
/**
 * The main part of the calculator performing the
 * arithmetic logic of the calculations.
 * @author Hacker T. Largebrain
 * @version 1.0
 */
public class CalcEngine
{
    // The value in the display.
    private int displayValue;
    // The previous operator typed (+ or -).
    private char previousOperator;
    // The left operand to previousOperator.
    private int leftOperand;

    /**
     * Create a CalcEngine instance.
     */
    public CalcEngine()
    {
        displayValue = 0;
        previousOperator = ' ';
        leftOperand = 0;
    }

    /**
     * @return The value currently displayed
     * on the calculator.
     */
    public int getDisplayValue()
    {
        return displayValue;
    }

    /**
     * A number button was pressed.
     * @param number The single digit.
     */
    public void numberPressed(int number)
    {
        displayValue = displayValue * 10 + number;
    }

    /**
     * The '+' button was pressed.
     */
    public void plus()
    {
        applyPreviousOperator();
        previousOperator = '+';
        displayValue = 0;
    }

    /**
```

```
     * The '-' button was pressed.
     */
    public void minus()
    {
        applyPreviousOperator();
        previousOperator = '-';
        displayValue = 0;
    }

    /**
     * The '=' button was pressed.
     */
    public void equals()
    {
        if(previousOperator == '+') {
            displayValue = leftOperand + displayValue;
        }
        else {
            displayValue = leftOperand - displayValue;
        }
        leftOperand = 0;
    }

    /**
     * The 'C' (clear) button was pressed.
     */
    public void clear()
    {
        displayValue = 0;
    }

    /**
     * @return The title of this calculation engine.
     */
    public String getTitle()
    {
        return "Super Calculator";
    }

    /**
     * @return The author of this engine.
     */
    public String getAuthor()
    {
        return "Hacker T. Largebrain";
    }

    /**
     * @return The version number of this engine.
     */
    public String getVersion()
    {
        return "version 0.2";
    }
```

```
109
110     /**
111      * An operator button has been pressed.
112      * Apply the immediately preceding operator to
113      * calculate an intermediate result. This will
114      * form the left operand of the new operator.
115      */
116     private void applyPreviousOperator()
117     {
118         if(previousOperator == '+') {
119             leftOperand += displayValue;
120         }
121         else if(previousOperator == '-') {
122             leftOperand -= displayValue;
123         }
124         else {
125             // There was no preceding operator.
126             leftOperand = displayValue;
127         }
128     }
129 }
130
```