

```
1 /**
2  * Test the CalcEngine class.
3  *
4  * @author Hacker T. Largebrain
5  * @version 1.0
6  */
7 public class CalcEngineTester
8 {
9     // The engine to be tested.
10    private CalcEngine engine;
11
12    /**
13     * Constructor for objects of class CalcEngineTester
14     */
15    public CalcEngineTester()
16    {
17        engine = new CalcEngine();
18    }
19
20    /**
21     * Test everything.
22     */
23    public void testAll()
24    {
25        System.out.println("Testing the addition operation.");
26        System.out.println("The result is: " + testPlus());
27        System.out.println("Testing the subtraction operation.");
28        System.out.println("The result is: " + testMinus());
29        System.out.println("All tests passed.");
30    }
31
32    /**
33     * Test the plus operation of the engine.
34     * @return the result of calculating 3+4.
35     */
36    public int testPlus()
37    {
38        // Make sure the engine is in a valid starting state.
39        engine.clear();
40        // Simulate the key presses: 3 + 4 =
41        engine.numberPressed(3);
42        engine.plus();
43        engine.numberPressed(4);
44        engine.equals();
45        // Return the result, which should be 7.
46        return engine.getDisplayValue();
47    }
48
49    /**
50     * Test the minus operation of the engine.
51     * @return the result of calculating 9 - 4.
52     */
53    public int testMinus()
54    {
```

```
55 // Make sure the engine is in a valid starting state.
56 engine.clear();
57 // Simulate the presses: 9 - 4 =
58 engine.numberPressed(9);
59 engine.minus();
60 engine.numberPressed(4);
61 engine.equals();
62 // Return the result, which should be 5.
63 return engine.getDisplayValue();
64 }
65 }
66 }
```