```
 1    // joi/2/linear/Temperatures.java
 2    //
 3    //
 4    // Copyright 2003 Bill Campbell and Ethan Bolker
 5
 6    /**
 7     * Temperature conversion program,
 8     * for exercising LinearEquation objects.
 9     *
10     * @version 2
11     */
12
13    public class Temperatures
14    {
15        /**
16         * First a hardcoded test of Celsius-Fahrenheit conversion,
17         * then a loop allowing the user to test interactively.
18         */
19
20        public static void main( String[] args )
21        {
22            Terminal terminal = new Terminal();
23
24            // create a Celsius to Fahrenheit converter
25            LinearEquation c2f = new LinearEquation( 9.0/5.0, 32.0 );
26
27            // ask it to tell us its inverse, for F to C
28            LinearEquation f2c = c2f.getInverse();
29
30            ///////////////////////////////////////////////
31            // Testing style 1: Hard coded, self-documenting //
32            ///////////////////////////////////////////////
33
34            terminal.println( "Hard coded self documenting tests:" );
35            terminal.print( "c2f.compute( 0.0 ), should see 32.0: " );
36            terminal.println( c2f.compute( 0.0 ) );
37            terminal.print( "f2c.compute( 212.0 ), should see 100.0: " );
38            terminal.println( f2c.compute( 212.0 ) );
39
40            ///////////////////////////////////////
41            // Testing style 2: Interactive //
42            ///////////////////////////////////////
43
44            terminal.println();
45            terminal.println( "Interactive tests:" );
46            while ( terminal.readYesOrNo("more?") ) {
47                double degreesCelsius =
48                    terminal.readDouble( "Celsius: " );
49                terminal.println( " = "
50                    + c2f.compute( degreesCelsius )
51                    + " degrees Fahrenheit" );
52                double degreesFahrenheit =
53                    terminal.readDouble( "degrees Fahrenheit: " );
54                terminal.println( " = "
55                    + f2c.compute( degreesFahrenheit )
56                    + " degrees Celsius" );
```

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57            }
58        }
59    }
```