```
 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  }
```