```
1   package Assign_2;
2
3
4   import Media.*;                  // for Turtle and TurtleDisplayer
5   import java.awt.*;               // for Color objects, constructor and methods
6   import static Media.Turtle.*;    // for Turtle speeds
7   import static java.lang.Math.*;  // for Math constants and functions
8   import static java.awt.Color.*;  // for Color constants
9
10  /** This class creates a cover with rows of  diamond-like patches composed of
    isoceles triangles.
11    * *
12    * @author Micah Rose-Mighty
13    *
14    * @version 1.0 2018/10/05
    */
15  public class Cover {
16
17    private TurtleDisplayer display;
18    private Turtle          yertle;
19  // instance variables
20
21
22    //This constructor runs the methods needed for the program to produce the cover.
23
24    public Cover ( ) {
25      display = new TurtleDisplayer();
26      yertle = new Turtle(FAST);
27      display.placeTurtle(yertle);
28      yertle.moveTo(-120,120);
29      drawTriangle();
30      drawPatch();
31      drawRow();
32      drawCover();
33      yertle.moveTo(0,0);
34      display.close();
35    }; // constructor
36
37    //method draws an isoceles triangle.
38
39    private void drawTriangle ( ) {
40      yertle.penDown();
41      yertle.forward(30);
42      yertle.left(3*PI/4);
43      yertle.forward(Math.sqrt(1800));
44      yertle.left(3*PI/4);
45      yertle.forward(30);
46      yertle.penUp();
47
48    };
49  //method draws a diamond-like patch composed of 4 isoceles triangles
50    private void drawPatch() {
51     yertle.penDown();
52     for (int i = 1;  i<=4;  i++ ) {
53       yertle.right(PI);
54       drawTriangle();
55
56     }
57     yertle.penUp();
58    }
59
60  //method draws a row consisting of 5 diamond-like patches.
61    private void drawRow()   {
62      yertle.left(PI/2);
63      for (int k = 1; k<= 4 ; k++) {
64        yertle.forward(60);
65        drawPatch();
66      }
67    }
68    //method draws 5 rows that cover the entire display.
```

```
69    private void drawCover() {
70
71      int x;
72      int y;
73
74      x = -120;
75      y=  60;
76
77      for ( int l = 1 ; l <= 4 ; l++) {
78        yertle.moveTo(x,y);
79        drawPatch();
80        drawTriangle();
81        drawRow();
82        y -=60;
83      }
84    }
85
86    public static void main ( String[] args ) { Cover s = new Cover(); };
87  }  // Cover
```