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1  package Assign_2_C;
2
3
4  import Media.*;           // for Turtle and TurtleDisplayer
5  import java.awt.*;        // for Color objects and methods
6  import static java.lang.Math.*; // for math constants and functions
7  import static java.awt.Color.*; // for Color constants
8  import static Media.Turtle.*; // for FAST turtle
9
10
11 /** This class creates a Greek Border around the canvas by calling on the methods
12     'drawBorder', 'drawRow' and
13     * 'drawKey', it consists of 4 Greek Rows and 68 Greek Keys in Turtle Graphics.
14     *
15     * @author Sawyer Fenwick (st# 6005011)
16     *
17     * @version 1.0 October 11 2016
18 */
19
20 public class GreekBorder {
21
22     // instance variables
23     private TurtleDisplayer display;
24     private Turtle yertle;
25
26     /** This constructor creates the Turtle Displayer and the Turtle object
27     'yertle'
28     * places yertle on the canvas, calls the 'drawBorder' method, which draws a
29     border around the canvas,
30     * using the 'GreekRow' and 'GreekKey' methods. */
31
32     public GreekBorder ( ) {
33
34         // statements including call of method
35         display = new TurtleDisplayer();
36         yertle = new Turtle(FAST); //creating a FAST turtle
37         display.placeTurtle(yertle); //placing turtle on display
38         drawBorder();
39         display.close();
40     }; // constructor
41
42     /** This method creates the Greek Key
43     */
44
45     private void drawKey ( ) {
46
47         // statements
48         yertle.penDown();
49         yertle.forward(2);
50         yertle.left(2*PI/4);
51         yertle.forward(12);
52         yertle.right(2*PI/4);
53         yertle.forward(12);
54         yertle.right(2*PI/4);
55         yertle.forward(8);
56         yertle.right(2*PI/4);
57         yertle.forward(4);
58         yertle.right(2*PI/4);
59         yertle.forward(4);
60         yertle.left(2*PI/4);
61         yertle.forward(4);
62         yertle.left(2*PI/4);
63         yertle.forward(8);
64         yertle.left(2*PI/4);
65         yertle.forward(10);

```

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66
67     }; // drawKey
68
69     /** This method creates the Greek Row using the 'drawKey' method
70     */
71     private void drawRow ( ) {
72
73         //statements
74         for(int i = 1; i <=17; i++){
75             drawKey();
76             yertle.penUp();
77         }
78
79     }; // drawRow
80
81     /** This method creates the Greek Border using the 'drawKey' and 'drawRow'
82     methods.
83     */
84     private void drawBorder ( ) {
85
86         //statements
87         yertle.moveTo(-136,136);
88         for(int i = 1; i <=4; i++){
89             drawRow();
90             yertle.right(2*PI/4);
91             yertle.penUp();
92         }
93
94     }; // drawBorder
95
96     public static void main ( String[] args ) { GreekBorder s = new GreekBorder();
97 };
98 } // GreekBorder

```