

```

1 package Assign_1_B;
2
3 import Media.*;           // for Turtle and TurtleDisplayer
4 import static java.lang.Math.*; // for Math constants and functions
5 import static java.awt.Color.*; // for Color constants
6 import static Media.Turtle.*;  // for FAST turtle
7
8 /** This class draws a crystal made up of 24 dodecagons using Turtle Graphics.
9  *
10  * @author Sawyer Fenwick(st# 6005011)
11  *
12  * @version 1.0 October 1st 2016
13  */
14 public class Crystal {
15
16     // instance variables
17     private TurtleDisplayer display;
18     private Turtle yertle;
19
20     public Crystal ( ) {
21         // constructor
22         display = new TurtleDisplayer();
23         yertle = new Turtle(FAST); //creating a FAST turtle
24
25         //statements
26         display.placeTurtle(yertle); //placing turtle on display
27
28         for(int j = 1; j <= 24; j++){ //drawing the crystal by repeating a dodecagon
29             24 times
30             for(int i = 1; i <= 12; i++){ //drawing a single dodecagon
31                 yertle.penDown();
32                 yertle.forward(25);
33                 yertle.right(2*PI/12);
34             }
35             yertle.right(2*PI/24); //rotating the turtle after each dodecagon to create
36             a full circle crystal
37             display.close(); //placing the close button the display
38         };
39
40         public static void main ( String[] args ) { Crystal s = new Crystal(); };
41
42     } // Crystal

```