

```

1  package Assign_1;
2
3
4  import Media.*;          // for Turtle and TurtleDisplay
5  import static java.lang.Math.*; // for Math constants and functions
6
7
8
9  // COSC 1P02 Assignment 1 //
10
11  // @Joshua Braganza //
12
13  // @version 1.0 (Jan 26th 2019) //
14
15  public class Crystal {
16
17      //Instance variables
18      private TurtleDisplay display;
19      private Turtle yertle;
20
21
22
23      public Crystal ( ) {
24
25          display = new TurtleDisplay();
26          yertle = new Turtle(Turtle.FAST);
27          display.placeTurtle(yertle);
28          yertle.penDown();
29
30
31          for (int j=1; j<=24; j++){ //To draw 24 dodecagons
32
33              //To draw one dodecagon. No need to reorient the first dodecagon
34              for(int i=1; i<=12 ; i++){
35                  yertle.forward(25);
36                  yertle.right(2*PI/12);
37              }
38
39              //To reorient the pointer before drawing the next dodecagon, Since I'm
drawing 24, I divide 360 degrees by 24
40              yertle.penUp();
41              yertle.left(2*PI/24);
42              yertle.penDown();
43
44          }
45
46
47      }; //End of code
48
49
50      //Main Method
51      public static void main ( String[] args ) {
52
53          Crystal s = new Crystal(); };
54
55
56  }

```