

# Drawing.java

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1 // Drawing.java
2
3 import java.util.Iterator;
4 import java.util.LinkedHashSet;
5
6 public class Drawing {
7     LinkedHashSet<Line> lines;
8
9     public void drawPolygon(LinkedHashSet <Line> lines){
10         this.lines = lines;
11         Polygon p = new Polygon(lines);
12         System.out.println(p);
13         System.out.printf("The perimeter of the polygon %d is: %.2f \n" , Polygon.classID(),
perimeter(p));
14     }
15
16     private double perimeter(Polygon p){
17         Iterator<Line> it = p.getLine();
18         double perim = 0;
19         while(it.hasNext()){
20             perim += it.next().distance();
21         }
22         return perim;
23     }
24
25     public static void main(String[] args) {
26         Drawing drawing = new Drawing();
27
28         Point [] points = {
29             new Point(20,30), new Point (50, 100), new Point (105, 30),
30             new Point(120,130), new Point (150, 200), new Point (200, 130),
31             new Point(320,330), new Point (250, 400), new Point (400, 330)
32         };
33
34         Line [] lines = {
35             new Line(points[0], points[1]),
36             new Line(points[1], points[2]),
37             new Line(points[2], points[0]),
38             new Line(points[3], points[4]),
39             new Line(points[4], points[5]),
40             new Line(points[5], points[3]),
41             new Line(points[6], points[7]),
42             new Line(points[7], points[8]),
43             new Line(points[8], points[6])
44         };
45
46         LinkedHashSet<Line> poly1 = new LinkedHashSet<Line>();
47         poly1.add(lines[0]);
48         poly1.add(lines[1]);
49         poly1.add(lines[2]);
50
51         drawing.drawPolygon(poly1);
52
53         LinkedHashSet<Line> poly2 = new LinkedHashSet<Line>();
54         poly2.add(lines[3]);
55         poly2.add(lines[4]);
56         poly2.add(lines[5]);
57
58         drawing.drawPolygon(poly2);

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59
60     LinkedHashSet<Line> poly3 = new LinkedHashSet<Line>();
61     poly3.add(lines[6]);
62     poly3.add(lines[7]);
63     poly3.add(lines[8]);
64
65     drawing.drawPolygon(poly3);
66 }
67
68 }
69
```