

Polygon.java

```
1 // Polygon.java
2
3 import java.util.*;
4
5 class Polygon {
6     private final LinkedHashSet <Line> polygon;
7     private int objID;
8     private static int classID;
9     Iterator <Line> it;
10
11     public Polygon(LinkedHashSet<Line> polygon) {
12         this.polygon = new LinkedHashSet<Line>();
13         for(Line l: polygon)
14             this.polygon.add (l);
15         objID = ++ classID;
16         it = this.polygon.iterator();
17     }
18
19     public Iterator <Line> getLine() {
20         it = polygon.iterator();
21         return it;
22     }
23
24     public static int classID(){
25         return classID;
26     }
27
28
29     public String toString() {
30         // Intended Format:
31         // The lines in polygon 1 are:
32         //   Line 1: starts at (20, 30), and ends at (50, 100)
33         //   Line x: etc.
34
35         Iterator<Line> it = getLine();
36
37         String s = "The lines in polygon " + objID + " are:";
38
39         while(it.hasNext()) {
40             s += "\n\t" + it.next().toString();
41         }
42     }
43
44     return s;
45 }
46 }
47
48
49
```