Line.java

```
Line
                           1
                                    Point
  -begin:Point
  -end:Point
                                 -x:int
  +Line(x1:int,y1:int,x2:int,
                                 -y:int
   y2:int)
  +Line(begin:Point,end:Point)
  +getBegin():Point
  +setBegin(begin:Point):void
  +getEnd():Point
  +setEnd(end:Point):void
  +getBeginX():int
  +setBeginX(x:int):void
  +getBeginY():int
  +setBeginY(y:int):void
  +setBeginXY(x:int,y:int):void
  +getEndX():int
  +setEndX(x:int):void
  +getEndY():int
  +setEndY(y:int):void
  +setEndXY(x:int,y:int):void
  +toString():String
  +getLength():double
1 package by.riit.chapter12;
2
  /**
3
    *
4
5
    */
6
  // Объявление Line class
7
  public class Line {
8
       // Объявление переменных Private
9
       Point begin, end;
                             // Declare begin and end as instances of Point
10
       // Constructors
11
       public Line(int x1, int y1, int x2, int y2) {
12
13
            begin = new Point(x1, y1); // Construct Point instances
14
            end = new Point(x2, y2);
15
       }
16
       public Line(Point begin, Point end) {
17
18
            this.begin = begin; // Caller constructed Point instances
19
            this.end = end;
20
       }
21
22
       // Public getter и setter для private переменных
23
       public Point getBegin() {
24
            return begin;
25
       }
26
27
       public Point getEnd() {
28
            return end;
29
30
31
       public void setBegin(Point begin) {
32
            this.begin = begin;
33
       }
34
       public void setEnd(Point end) {
35
36
            this.end = end;
37
       }
```

```
38
39
      public int getBeginX() {
40
           return begin.getX();
41
      }
42
43
      public void setBeginX(int x) {
44
           begin.setX(x);
45
      }
46
47
      public int getBeginY() {
48
           return begin.getY();
49
      }
50
51
      public void setBeginY(int y) {
52
           begin.setY(y);
53
      }
54
      public void setBeginXY(int x, int y) {
55
56
           begin.setX(x);
57
           begin.setY(y);
      }
58
59
      public int getEndX() {
60
61
           return end.getX();
62
      }
63
64
      public void setEndX(int x) {
65
           end.setX(x);
66
      }
67
      public int getEndY() {
68
69
           return end.getY();
70
71
72
      public void setEndY(int y) {
73
           end.setY(y);
74
      }
75
76
      public void setEndXY(int x, int y) {
77
           end.setX(x);
78
           end.setY(y);
79
      }
80
      public String toString() {
81
           return "Line from " + begin + " to " + end;
82
83
      }
84
85
      public double getLength() {
86
           int xDiff = begin.getX() - end.getX();
           int yDiff = begin.getY() - end.getY();
87
88
           return Math.sqrt(xDiff * xDiff + yDiff * yDiff);
89
      }
90 }
```