```
 1  // joi/5/shapes/Line.java
 2  //
 3  //
 4  // Copyright 2003 Bill Campbell and Ethan Bolker
 5
 6  /**
 7   * A Line has a length and a paintChar used to paint
 8   * itself on a Screen.
 9   *
10   * Subclasses of this abstract class specify the direction
11   * of the Line.
12   *
13   * @version 5
14   */
15
16  public abstract class Line
17  {
18      protected int  length;      // length in (character) pixels.
19      protected char paintChar;   // character used for painting.
20
21      /**
22       * Construct a Line.
23       *
24       * @param length length in (character) pixels.
25       * @param paintChar character used for painting this Line.
26       */
27
28      protected Line( int length, char paintChar )
29      {
30          this.length    = length;
31          this.paintChar = paintChar;
32      }
33
34      /**
35       * Get the length of this line.
36       *
37       * @return the length in (character) pixels.
38       */
39
40      public int getLength()
41      {
42          return length;
43      }
44
45      /**
46       * Set the length of this line.
47       *
48       * @param length the new length in (character) pixels.
49       */
50
51      public void setLength( int length )
52      {
53          this.length = length;
54      }
55
56      /**
```



```
57       * Get the paintChar of this Line.
58       *
59       * @return the paintChar.
60       */
61
62      public char getPaintChar()
63      {
64          return paintChar;
65      }
66
67      /**
68       * Set the paintChar of this Line.
69       *
70       * @param paintChar the new paintChar.
71       */
72
73      public void setPaintChar( char paintChar )
74      {
75          this.paintChar = paintChar;
76      }
77
78      /**
79       * Paint this Line on Screen s at position (x,y).
80       *
81       * @param s the Screen on which this Line is to be painted.
82       * @param x the x position for the line.
83       * @param y the y position for the line.
84       */
85
86      public abstract void paintOn( Screen s, int x, int y );
87
88      /**
89       * Paint this Line on Screen s at position (0,0).
90       *
91       * @param s the Screen on which this Line is to be painted.
92       */
93
94      public void paintOn( Screen s )
95      {
96          paintOn( s, 0, 0 );
97      }
98  }
```