

## Selected files

### 2 printable files

Question\_3\a\LoopLines.java  
Question\_3\a\LoopLinesTest.java

#### Question\_3\a\LoopLines.java

```
1 import javax.swing.JPanel;
2 import java.awt.Graphics;
3
4 public class LoopLines extends JPanel {
5
6     @Override
7     protected void paintComponent(Graphics g) {
8         super.paintComponent(g);
9
10        int width = getWidth();
11        int height = getHeight();
12        int steps = 15; // Number of steps
13
14        int stepWidth = width / steps;
15        int stepHeight = height / steps;
16
17        int x2 = 0; // Initialize the x-coordinate of the second endpoint
18
19        for (int i = 0; i < steps; i++) {
20            int y2 = height - (i * stepHeight); // Calculate the y-coordinate of the second
endpoint
21
22            g.drawLine(0, 0, x2, y2); // Draw line from (0,0) to (x2,y2)
23
24            x2 += stepWidth; // Move to the right one step
25        }
26    }
27 }
28
```

#### Question\_3\a\LoopLinesTest.java

```
1 import javax.swing.JFrame;
2
3 public class LoopLinesTest {
4     public static void main(String[] args) {
5
6         //create a panel that contains our drawing
7         LoopLines panel = new LoopLines();
8
9         //create a new frame to hold the panel
10        JFrame application = new JFrame();
11
12        //set the frame to exit when it is closed
13        application.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
14
15        application.add(panel); //add the panel to the frame
16        application.setSize(300, 300);
17        application.setVisible(true);
18    }
19 }
```

19 | }  
20 |