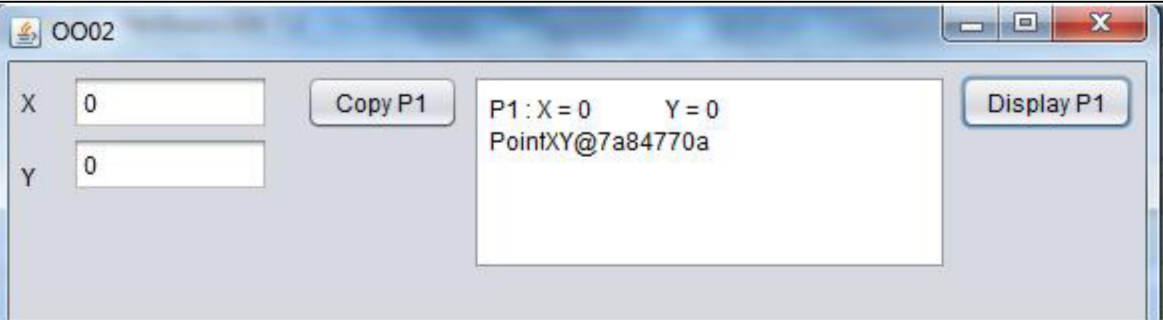
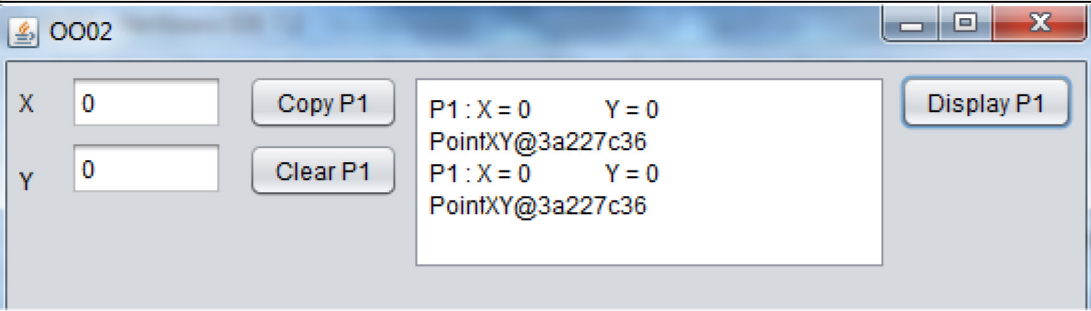


Fundamentals of Programming II Lab 07

1	<pre>public class PointXY { int X; int Y; }</pre>
	<pre>public static void main(String[] args) { PointXY p1; p1=new PointXY(); PointXY p2=new PointXY(); p1.X=1; p1.Y=0; System.out.println("Point 1:"); System.out.println("X="+p1.X); System.out.println("Y="+p1.Y); System.out.println(p1); }</pre>

2	
	<pre>public class PointXY { int X; int Y;</pre>
	<pre>PointXY p1 = new PointXY();</pre>
	<pre>p1.X = Integer.parseInt(jTextField1.getText()); p1.Y = Integer.parseInt(jTextField2.getText());</pre>
	<pre>jTextArea1.append("P1 : X = " + p1.X + "\tY = " + p1.Y + "\n" + p1.toString() + "\n");</pre>

3



```
public class PointXY {
    int X;
    int Y;
    public void initPointXY()
    {
        X=0;
        Y=0;
    }
}
```

```
PointXY p1 = new PointXY();
```

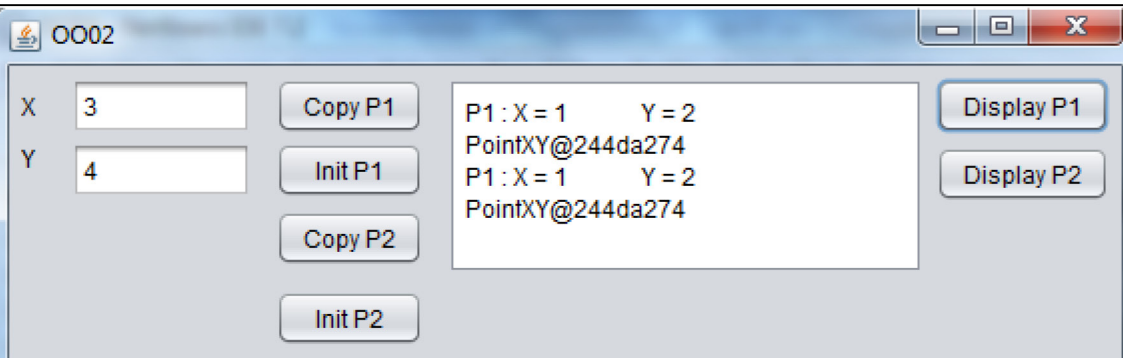
```
p1.X = Integer.parseInt(jTextField1.getText());
```

```
p1.Y = Integer.parseInt(jTextField2.getText());
```

```
jTextArea1.append("P1 : X = " + p1.X + "\tY = " + p1.Y + "\n" + p1.toString()
+ "\n");
```

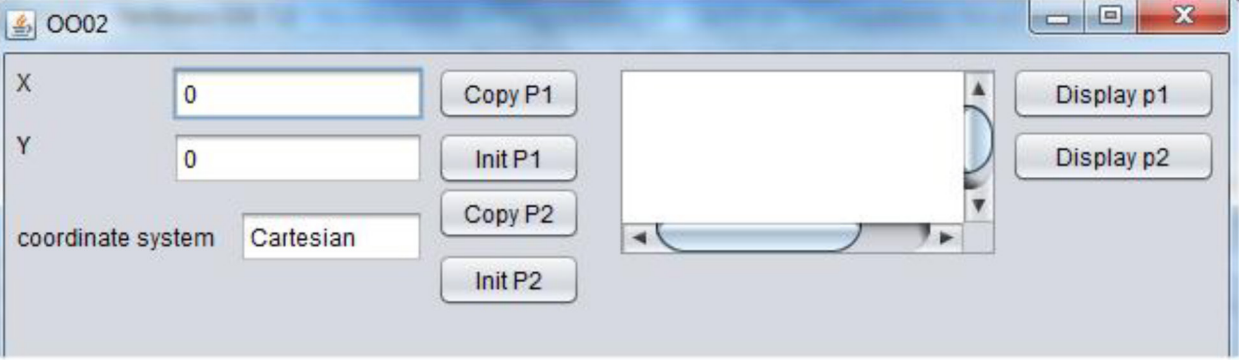
```
p1.initPointXY();
```

4

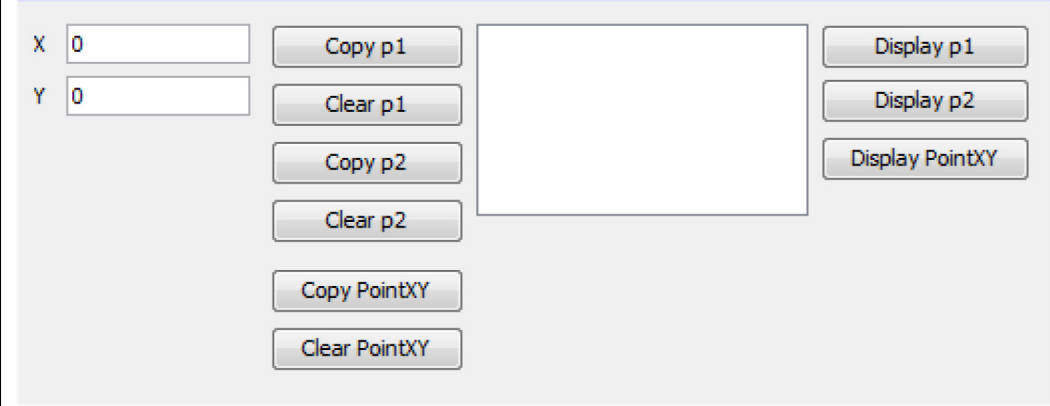


```
public class PointXY {
    int X;
    int Y;
    public void initPointXY()
    {
        X=0;
```

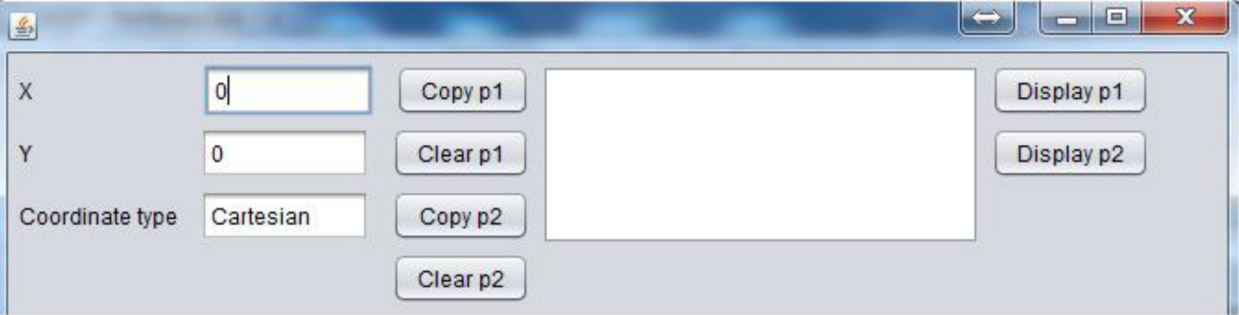
	<pre> Y=0; } } </pre>
	<pre> PointXY p1 = new PointXY(); PointXY p2 = new PointXY(); </pre>
	<pre> p1.X = Integer.parseInt(jTextField1.getText()); p1.Y = Integer.parseInt(jTextField2.getText()); </pre>
	<pre> p1.initPointXY(); </pre>
	<pre> p2.X = Integer.parseInt(jTextField1.getText()); p2.Y = Integer.parseInt(jTextField2.getText()); </pre>
	<pre> p2.initPointXY(); </pre>
	<pre> jTextArea1.append("P1 : X = " + p1.X + "\tY = " + p1.Y + "\n" + p1.toString() + "\n"); </pre>
	<pre> jTextArea1.append("P2 : X = " + p2.X + "\tY = " + p2.Y + "\n" + p2.toString() + "\n"); </pre>

5	
	<pre> public class PointXY { static String coordinateType; int X; int Y; public void initPointXY() { X=0; Y=0; coordinateType="none"; } } </pre>

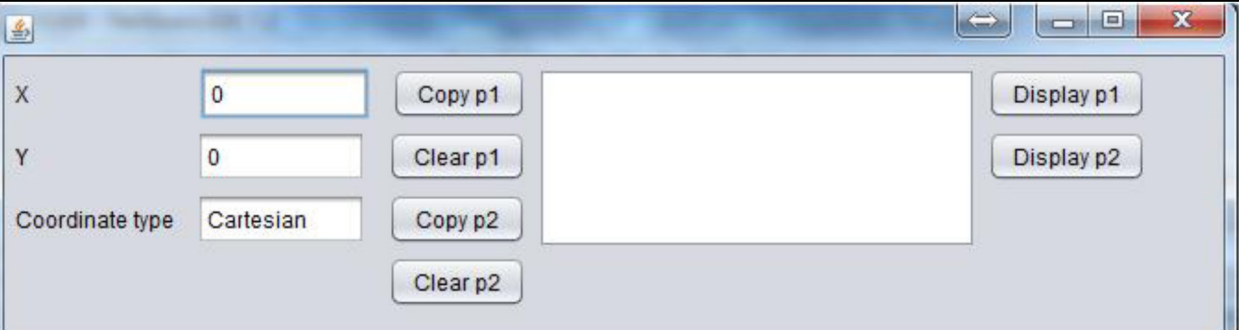
	<pre>PointXY p1 = new PointXY(); PointXY p2 = new PointXY();</pre>
	<pre>p1.X = Integer.parseInt(jTextField1.getText()); p1.Y = Integer.parseInt(jTextField2.getText()); PointXY.coordinateType = jTextField3.getText();</pre>
	<pre>p1.initPointXY();</pre>
	<pre>p2.X = Integer.parseInt(jTextField1.getText()); p2.Y = Integer.parseInt(jTextField2.getText()); PointXY.coordinateType = jTextField3.getText();</pre>
	<pre>p2.initPointXY();</pre>
	<pre>jTextArea1.append("P1 : X = " + p1.X + "\tY = " + p1.Y + "\ncoordinate system = " + PointXY.coordinateType + "\n" + p1.toString());</pre>
	<pre>jTextArea1.append("P2 : X = " + p2.X + "\tY = " + p2.Y + "\ncoordinate system = " + PointXY.coordinateType + "\n" + p2.toString());</pre>

6	
	<pre>public class PointXY { static String coordinateType; static int X; static int Y; public static void initPointXY() { X=0; Y=0; } }</pre>

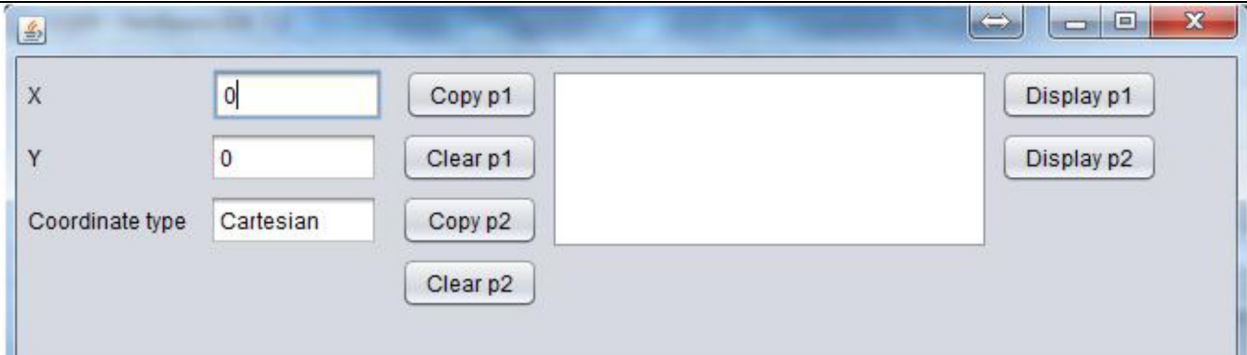
	PointXY p1 = new PointXY(); PointXY p2 = new PointXY();
	p1.X = Integer.parseInt(jTextField1.getText()); p1.Y = Integer.parseInt(jTextField2.getText());
	p1.initPointXY();
	p2.X = Integer.parseInt(jTextField1.getText()); p2.Y = Integer.parseInt(jTextField2.getText());
	p2.initPointXY();
	PointXY.X = Integer.parseInt(jTextField1.getText()); PointXY.Y = Integer.parseInt(jTextField2.getText());
	PointXY.initPointXY();
	jTextArea1.append("p1 : X = " + p1.X + "\tY = " + p1.Y + "\n");
	jTextArea1.append("p2 : X = " + p2.X + "\tY = " + p2.Y + "\n");
	jTextArea1.append("PointXY : X = " + PointXY.X + "\tY = " + PointXY.Y + "\n");

7	 <pre> public class PointXY { final String coordinateType="cartesian "; int X; int Y; public void initPointXY() { X=0; Y=0; } } </pre>
	<pre> PointXY p1=new PointXY(); PointXY p2=new PointXY(); </pre>

	<code>p1.X=Integer.parseInt(jTextField1.getText());</code>
	<code>p1.Y=Integer.parseInt(jTextField2.getText());</code>
	<code>p1.initPointXY();</code>
	<code>p2.X=Integer.parseInt(jTextField1.getText());</code>
	<code>p2.Y=Integer.parseInt(jTextField2.getText());</code>
	<code>p2.initPointXY();</code>
	<code>jTextArea1.append("p1 : X = "+p1.X+"\tY = "+p1.Y+"\n"+"Coordinate type = "+p1.coordinateType+"\n");</code>
	<code>jTextArea1.append("p2 : X = "+p2.X+"\tY = "+p2.Y+"\n"+"Coordinate type = "+p1.coordinateType+"\n");</code>

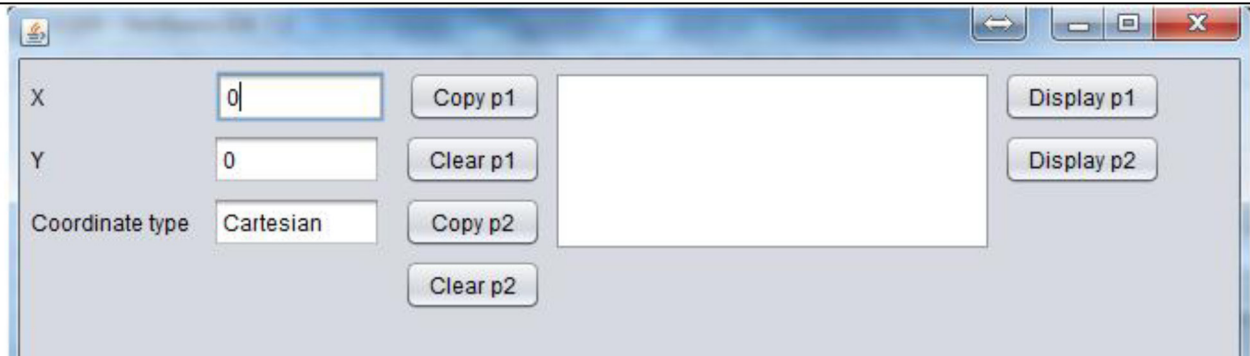
8	
	<pre> public class PointXY { public String coordinateType="cartesian "; int X; int Y; public void initPointXY() { this.X=0; this.Y=0; } } </pre>
	<pre> PointXY p1=new PointXY(); PointXY p2=new PointXY(); </pre>
	<pre> p1.X=Integer.parseInt(jTextField1.getText()); p1.Y=Integer.parseInt(jTextField2.getText()); p1.coordinateType=jTextField3.getText(); </pre>
	<pre> p1.initPointXY(); </pre>

	<code>p2.X=Integer.parseInt(jTextField1.getText());</code>
	<code>p2.Y=Integer.parseInt(jTextField2.getText());</code>
	<code>p2.coordinateType=jTextField3.getText();</code>
	<code>p2.initPointXY();</code>
	<code>jTextArea1.append("p1 : X = "+p1.X+"\tY = "+p1.Y+"\n"+"Coordinate type = "+p1.coordinateType+"\n");</code>
	<code>jTextArea1.append("p2 : X = "+p2.X+"\tY = "+p2.Y+"\n"+"Coordinate type = "+p1.coordinateType+"\n");</code>

9	 <pre> public class PointXY { public String coordinateType="cartesian "; int X; int Y; public void initPointXY() { this.X=0; this.Y=0; } int getX() { return X; } int getY() { return Y; } String getCoordinateType() { </pre>
---	---

	<pre> return coordinateType; } </pre>
	<pre> p1.X=(Integer.parseInt(jTextField1.getText())); p1.Y=(Integer.parseInt(jTextField2.getText())); p1.coordinateType=(jTextField3.getText()); </pre>
	<pre> p1.initPointXY(); </pre>
	<pre> p2.X=(Integer.parseInt(jTextField1.getText())); p2.Y=(Integer.parseInt(jTextField2.getText())); p2.coordinateType=(jTextField3.getText()); </pre>
	<pre> p2.initPointXY(); </pre>
	<pre> jTextArea1.append("p1 : X = "+p1.getX()+"\tY = "+p1.getY()+"\n"+"Coordinate type = "+p1.getCoordinateType()+"\n"); </pre>
	<pre> jTextArea1.append("p2 : X = "+p2.getX()+"\tY = "+p2.getY()+"\n"+"Coordinate type = "+p1.getCoordinateType()+"\n"); </pre>

10



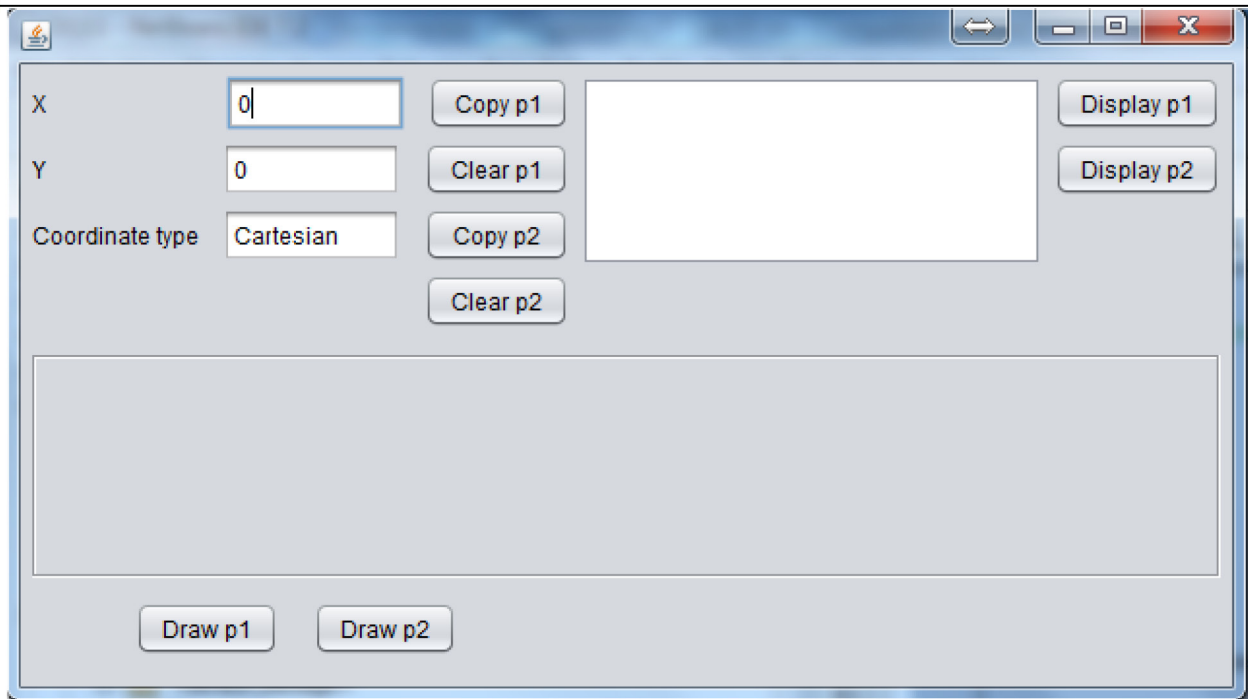
```

public class PointXY {
    public String coordinateType="cartesian ";
    int X;
    int Y;
    public void initPointXY()
    {
        this.X=0;
        this.Y=0;
    }
    int getX()
    {
        return X;
    }
}

```

	<pre> } int getY() { return Y; } String getCoordinateType() { return coordinateType; } void setX(int X) { this.X=X; } void setY(int Y) { this.Y=Y; } void setCoordinateType(String st) { coordinateType=st; } } </pre>
	<pre> p1.setX(Integer.parseInt(jTextField1.getText())); p1.setY(Integer.parseInt(jTextField2.getText())); p1.setCoordinateType(jTextField3.getText()); </pre>
	<pre> p1.initPointXY(); </pre>
	<pre> p2.setX(Integer.parseInt(jTextField1.getText())); p2.setY(Integer.parseInt(jTextField2.getText())); p2.setCoordinateType(jTextField3.getText()); </pre>
	<pre> p2.initPointXY(); </pre>
	<pre> jTextArea1.append("p1 : X = "+p1.getX()+"\tY = "+p1.getY()+"\n"+"Coordinate type = "+p1.getCoordinateType()+"\n"); </pre>

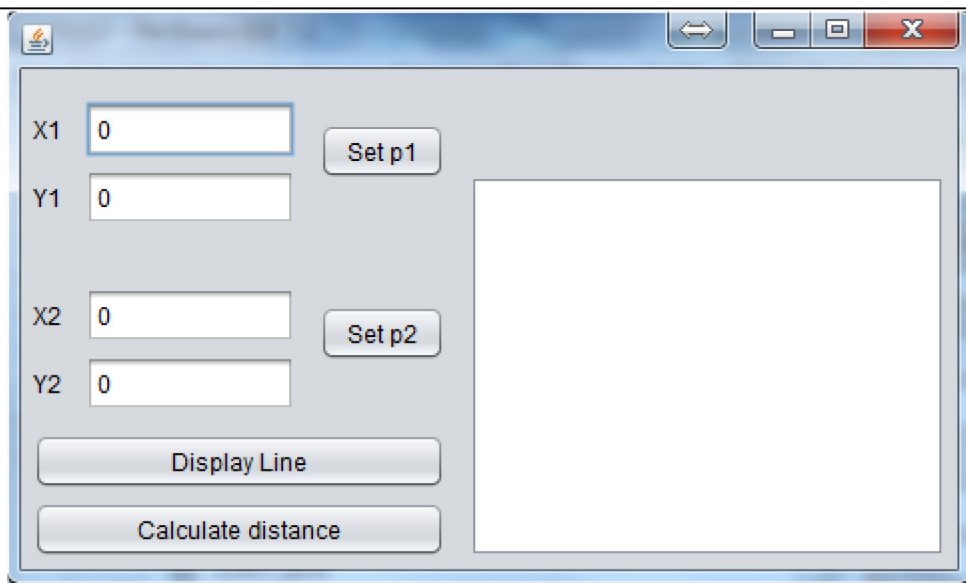
11



```
jPanel1.getGraphics().fillOval(p1.getX(), p1.getY(), 5, 5);
```

```
jPanel1.getGraphics().fillOval(p2.getX(), p2.getY(), 5, 5);
```

12



```
public class LineXY {
    int x1 = 0, x2 = 0, y1 = 0, y2 = 0;
    void setP1(int x, int y) {
        x1 = x;
        y1 = y;
    }
    void setP2(int x, int y) {
        x2 = x;

```

	<pre> y2 = y; } String getP1() { return "P1: x1 = " + x1 + "\ty1 = " + y1; } String getP2() { return "P2: x2 = " + x2 + "\ty2 = " + y2; } double getLength() { int dx=x2-x1; int dy=y2-y1; double l=Math.sqrt((dx*dx) + (dy*dy)); return l; } } </pre>
	<pre> LineXY line=new LineXY(); </pre>
	<pre> line.setP1(Integer.parseInt(jTextField1.getText()), Integer.parseInt(jTextField2.getText())); jTextFieldArea1.append(line.getP1()+"\n"); </pre>
	<pre> line.setP2(Integer.parseInt(jTextField3.getText()), Integer.parseInt(jTextField4.getText())); jTextFieldArea1.append(line.getP2()+"\n"); </pre>
	<pre> jTextFieldArea1.append(line.getP1()+"\n"); jTextFieldArea1.append(line.getP2()+"\n"); </pre>
	<pre> jTextFieldArea1.append("Line length = "+line.getLength()+"\n"); </pre>