

Opgave 9.1 (a) Diamond

DiamondShape.java:

```
import java.awt.*;

public class DiamondShape extends TwoEndsShape {
    public void draw(Graphics g) {
        if (color != null)
            g.setColor(color);
        g.drawPolygon(new int[] {x1, (x1 + x2 - y1 + y2) / 2,
                                x2, (x1 + x2 + y1 - y2) / 2},
                    new int[] {y1, (y1 + y2 + x1 - x2) / 2,
                                y2, (y1 + y2 - x1 + x2) / 2}, 4);
    }

    public void drawOutline(Graphics g,
                            int x1, int y1, int x2, int y2) {
        g.drawPolygon(new int[] {x1, (x1 + x2 - y1 + y2) / 2,
                                x2, (x1 + x2 + y1 - y2) / 2},
                    new int[] {y1, (y1 + y2 + x1 - x2) / 2,
                                y2, (y1 + y2 - x1 + x2) / 2}, 4);
    }
}
```

FilledDiamondShape.java:

```
import java.awt.*;

public class FilledDiamondShape extends DiamondShape {
    public void draw(Graphics g) {
        if (color != null)
            g.setColor(color);
        g.fillPolygon(new int[] {x1, (x1 + x2 - y1 + y2) / 2,
                                x2, (x1 + x2 + y1 - y2) / 2},
                    new int[] {y1, (y1 + y2 + x1 - x2) / 2,
                                y2, (y1 + y2 - x1 + x2) / 2}, 4);
    }
}
```

I metoden initTools i class DrawingPad indsættes følgende:

```
toolkit.addTool(new TwoEndsShapeTool(canvas, "Diamond",
                                     new DiamondShape()));
toolkit.addTool(new TwoEndsShapeTool(canvas, "FilledDiamond",
                                     new FilledDiamondShape()));
```