

CSE 142 Section Handout #3 Solutions

1. $-2 + 4 = 7$
 $4 + -2 = 3$
 $2 + 11 = 5$

2. Many a student in the computer of fred
Many a computer in the department of major
Many a department in the honor of fred
Many a baz in the bar of foo

3. everywhere there had a old
here macdonald had a there
there quack had a everywhere
farm duck had a here
old macdonald had a farm

4. `import java.awt.*; // Part (a) solution`

```
public class SquaresA {
    public static void main(String[] args) {
        DrawingPanel p = new DrawingPanel(300, 200);
        p.setBackground(Color.CYAN);
        Graphics g = p.getGraphics();
        g.setColor(Color.RED);
        for (int i = 1; i <= 5; i++) {
            g.drawRect(50, 50, i * 20, i * 20);
        }
        g.setColor(Color.BLACK);
        g.drawLine(50, 50, 150, 150);
    }
}
```

`import java.awt.*; // Part (c) solution (incorporates Part b)`

```
public class SquaresC {
    public static void main(String[] args) {
        DrawingPanel p = new DrawingPanel(400, 300);
        p.setBackground(Color.CYAN);
        Graphics g = p.getGraphics();
        drawFigure(g, 50, 50, 100);
        drawFigure(g, 250, 10, 50);
        drawFigure(g, 180, 115, 180);
    }

    public static void drawFigure(Graphics g, int x, int y, int size) {
        g.setColor(Color.RED);
        for (int i = 1; i <= 5; i++) {
            g.drawRect(x, y, i * size / 5, i * size / 5);
        }
        g.setColor(Color.BLACK);
        g.drawLine(x, y, x + size, y + size);
    }
}
```

5. `import java.awt.*;`

```
public class Triangle {
    public static void main(String[] args) {
        DrawingPanel p = new DrawingPanel(600, 200);
        p.setBackground(Color.YELLOW);
        Graphics g = p.getGraphics();
        g.setColor(Color.BLUE);
        g.drawLine(0, 0, 300, 200);
        g.drawLine(300, 200, 600, 0);

        for (int i = 1; i <= 19; i++) {
            g.drawLine(15 * i, 10 * i, 600 - 15 * i, 10 * i);
        }
    }
}
```