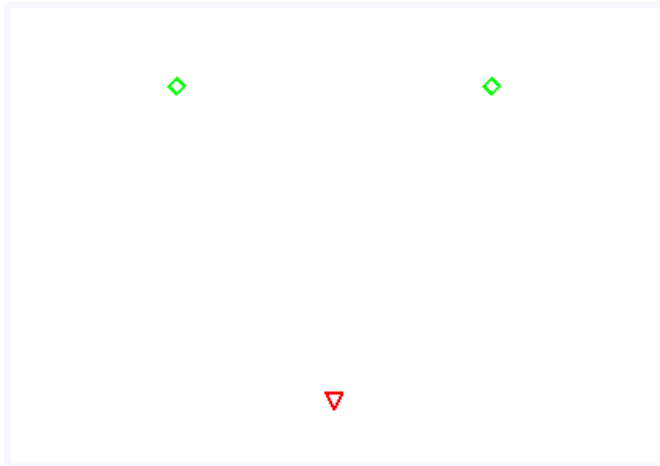


Model 1 Drawing and Tracing

Open *Drawing.java* and run the program. Keep an eye on both the Drawing window and the Console output. Notice the order in which the shapes are drawn. Run the program again, as needed, so that all team members can see its behavior. Then answer the questions below to explore and discuss the source code as a team.

Drawing (cropped)



Console output

```
diamond(300, 200)
    triangle(400, 400)
diamond(500, 200)
```

Questions (15 min)

Start time:

1. Fill in each blank with IS-A, HAS-A, or USES-A:

- | | | | |
|------------|------------|------------|--------|
| a) Drawing | Canvas | c) Drawing | Color |
| b) Drawing | Graphics2D | d) Drawing | JFrame |

2. Based on the `Drawing()` constructor:

- | | |
|-------------------------------|------------------------------|
| a) What is the Canvas width? | c) What is the JFrame title? |
| b) What is the Canvas height? | d) What is "in" the JFrame? |
- Hint: see Line 33.*

3. Summarize in your own words what each method does:

- a) `paint(Graphics g)`
- b) `draw()`

4. What is the purpose of the `g2` attribute? (i.e., How is it used in the program?)
5. Consider the “Console output” (from Model 1) and the `trace()` method:
 - a) Why is the “triangle” line indented?
 - b) Why are the “diamond” lines *not* indented?
 - c) How long is the delay after drawing each shape?
6. Modify the `draw()` method to draw and trace many diamonds and triangles. Use `for` loops to put each shape at a different (x,y) location. Reduce the `DELAY` so you can see the final result. Paste your source code below: