CSE 143X Section Handout #2
Problems

Parameter Mystery

(Ch. 3 self-checks 1-6, 11)

1. ("ParameterMystery1"). What output is produced by the following program?

```
public class ParameterMystery1 {
    public static void main(String[] args) {
        int a = 4;
        int b = 7;
        int c = -2;

        mystery(a, b, c);
        mystery(c, 3, a);
        mystery(a + b, b + c, c + a);
    }

    public static void mystery(int c, int a, int b) {
        System.out.println(b + " + " + c + " = " + a);
    }
}
```

2. ("ParameterMystery2"). What output is produced by the following program?

```
public class ParameterMystery2 {
    public static void main(String[] args) {
        String major = "fred";
        String fred = "computer";
        String computer = "department";
        String department = "student";
        String student = "major";

        sentence(major, fred, department);
        sentence(student, computer, fred);
        sentence("fred", "honor", computer);
        sentence("foo", "bar", "baz");
    }

    public static void sentence(String major, String fred, String foo) {
        System.out.println("Many a " + foo + " in the " + fred + " of " + major);
    }
}
```

3. ("ParameterMystery3"). What output is produced by the following program?

```
public class ParameterMystery3 {
    public static void main(String[] args) {
        String farm = "here";
        String old = "macdonald";
        String macdonald = "there";
        String everywhere = "farm";
        String here = "everywhere";
        String there = "old";
        String quack = "duck";

        mystery(macdonald, there, "everywhere");
        mystery(old, macdonald, farm);
        mystery("quack", here, "there");
        mystery(quack, "here", "farm");
        mystery(old, everywhere, there);
    }

    public static void mystery(String macdonald, String farm, String old) {
        System.out.println(old + " " + macdonald + " had a " + farm);
    }
}
```

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CSE 143X Section Handout #2
Problems (continued)

`Graphics` and `DrawingPanel`

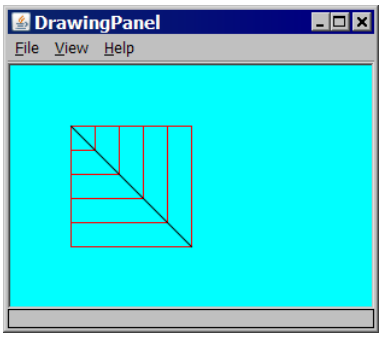
(Supp. 3G self-checks 1-4, exercises 1-9)

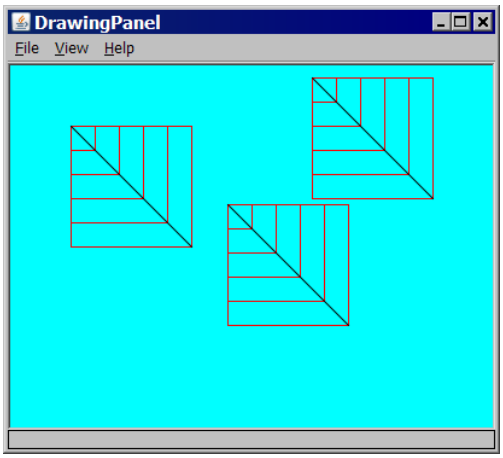
4. a) Exercise 3G.5, p219 ("SquaresA"). Generate the output shown using the `DrawingPanel` class.

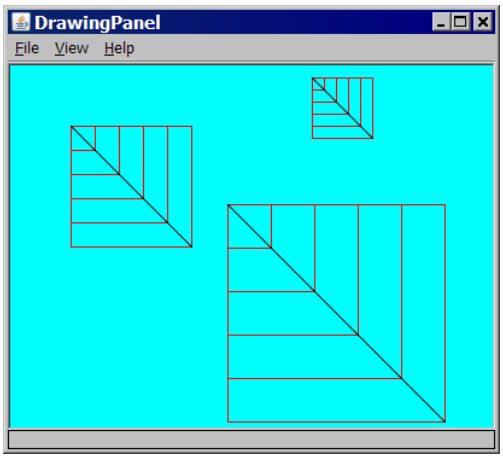
- window size: **300x200**
- background color: **cyan**; rectangle color: **red**; diagonal line color: **black**
- position: **(50, 50)**; size: **100 px**; spacing between red lines: **20 px**

b) Exercise 3G.6, p220 ("SquaresB"). Parameterize your program so that the figure can be drawn at different positions. Change the window size to **400x300**. The first figure is still at its original position of (50, 50). The two additional figures should appear at **(250, 10)** and **(180, 115)**.

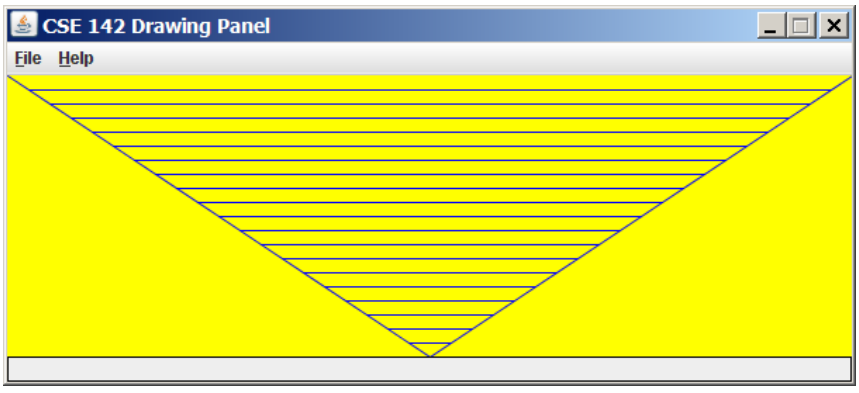
c) Exercise 3G.6, p220 ("SquaresC"). Further parameterize your program to have the sizes shown below. The top-right figure has size **50**, and the bottom-right figure has size **180**.







5. Exercise 3G.8, p221 ("Triangle"). Using `DrawingPanel`, write a Java program that produces this figure:



- size: **600x200**
- background color: **yellow**
- line color: **blue**
- vertical spacing between lines: **10 px**

The diagonal lines connect at the bottom in the middle.