

In this exercise you'll be practicing more loops and also getting some experience with using a graphical "grid" object that you can paint. We are using a similar grid in project P3.

1. You've checked out Fall2017-Lab04 to get this PDF.
2. Open the file called **OperatorMaker.java** and implement the four empty "helper" methods that you see in this file as well as the **drawOp** method. Each of the methods accepts a parameter that is of type **SquareGrid**. This parameter has already been initialized before your method was called, so do not attempt to create your own **SquareGrid** object. When you are running the **ExampleDriver** in Eclipse the grid will be created there and passed into the **drawOp** method, and the **drawOp** method will then pass it along to the appropriate helper method. **The size of the grid may vary, but it will always be an odd number.**

A **SquareGrid** is similar to the grid class that you will use in project P3. Each method you write will draw a different symbol on the grid. **See the back page for pictures of the symbols that you will be drawing on the grid.**

To obtain the size of the grid, use the following syntax:

```
int size = grid.getHt(); // Sets the variable "size" equal to the size of the grid.
```

To draw on the grid, use the following syntax:

```
grid.setColor(row, column, Color.BLUE); // That will paint the cell blue.
```

The "brush stroke" will always be of width 1 in this lab.

HINT: Rather than writing redundant code, you can have some of your methods make calls to others. For example, your "plus" method could start by calling "minus" and then just drawing a vertical line!

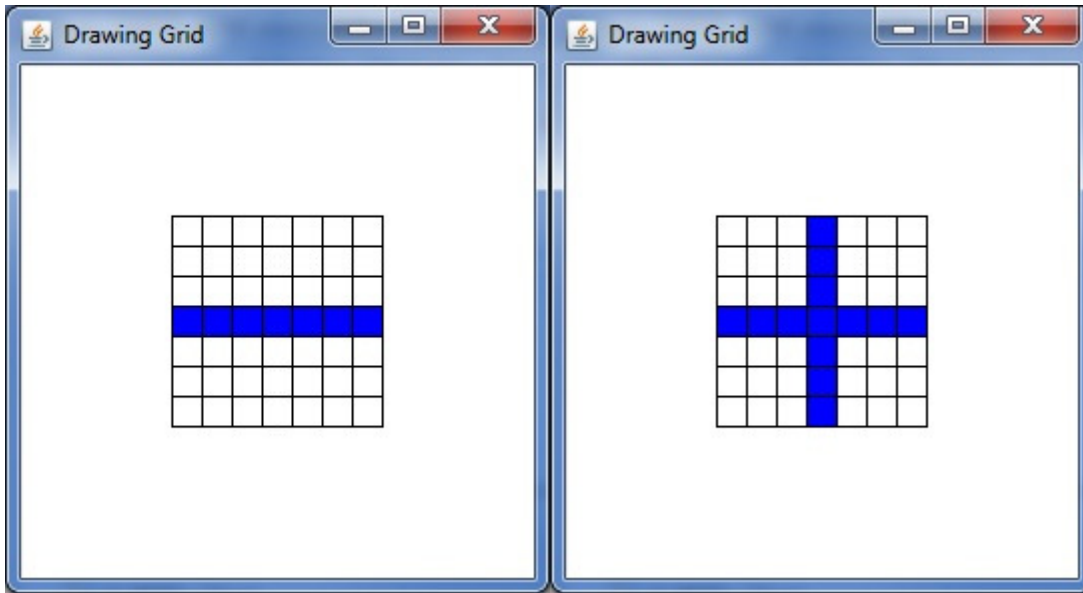
3. To test your code, run the main method that is in the class called **ExampleDriver**.
4. Submit your work!

[See the shapes you must draw on the back page!]

This is what the shapes should look like when drawn on a SquareGrid of size 7:

Minus:

Plus:



Divide:

Multiply:

