CISC 3120 Fall 2012 Lab II.2

1. Writing your first class:

   - Write a program that defines the class `point`. The class should contain two `private` instance fields `x` and `y`.

   - The class should contain `public` API methods to set and retrieve the values of `x` and `y`.

   - The class should contain 3 constructors.
     One should take no arguments and set `x` and `y` to sensible default values.
     One should take two arguments, and set `x` and `y` to these values.
     One should take just one argument, and should use this to set `x` and `y` in some way that you define.

2. Using the class:

   - Get a(nother) copy of the `MovingEllipse` project from Prof. Parsons.

   - Modify the `MovingEllipse` project so that the coordinates of the ellipse are held in a `point` object.
     (You will likely only need to modify the file `MovingGraphicsComponent.java`)

   - Make sure you can compile and run this version of the project and that it behaves as before (it can be tricky to make sure you have made all the necessary changes).

3. A second class.

   - Now write a class `MyEllipse` which has two instance fields: a `point` object and a field that holds the color of the ellipse.
     The class should have `private` instance fields, `public` API methods, and at least one constructor.

   - Modify the `MovingEllipse` project to use the `MyEllipse` class to hold relevant information about the ellipse that is displayed by the program.

   - Note that you will have to decide how to store the color data in `MyEllipse`, and how to use this to decide what color `paintComponent` invokes.