**Gem Matching FAQ**

***Do I need to follow the prescribed APIs?***

Yes. Do not add public methods to the API; however, you may add private methods if you wish.

***How do I set the font type and size that****StdDraw.text()****uses?***

The pictured Gem point total used: StdDraw.setFont(new Font("SansSerif", Font.BOLD, 14))

***How do I set the color****StdDraw.text()****uses?***

Use StdDraw.setPenColor(). This method accepts a Color object. There are a handful of public static final colors built in to the Color class, e.g. Color.WHITE or Color.RED, or you can construct a new Color object (supplying three integers from 0 to 255 that represent the RGB intensities).

***How do I draw a picture at a particular location?***

Review the StdDraw.java class' documentation for help with the specific drawing methods. The default coordinate system has the lower-left corner being (0.0, 0.0) and the upper-right corner being (1.0, 1.0) (slightly different than "ordinary" computer graphics, for those that are familiar with them).

When drawing a picture at <X, Y>, the X and Y represent the midpoint of the picture on the canvas. Drawing a picture at <0.5, 0.5> will put the midpoint of the picture at the center of the canvas.

***Omg! What is*** *GemList$Node.class****?!***

When you declare a *nested* class like Node, the Java compiler uses the $ symbol to mark its name. If you print a Node object without overriding its toString method, you might see something like GemList$Node@3d4eac69.

***Can I use Java's built in LinkedList class?***

Absolutely not! One of the main goals of this assignment is to gain experience writing and using linked structures. The Java libraries can only take you so far, and you will eventually discover applications which cannot be solved without devising your own linked structures.

***When implementing my****insertBefore****method, what special cases should I worry about?***

You should worry about inserting into a completely empty list and inserting at the very start of the list. You could also worry (briefly) about inserting at any value >= size.

***When implementing****draw****in****GemList****how do I determine where to draw each gem?***

There is a static helper method indexToX in GemGame. You can call this method to calculate the X-coordinate based on the index position of a gem in the linked list (and vice versa). **Note:** static methods are called on the class, not an object of the class, e.g. GemGame.indexToX(5)