Quick Summary of Graphic Objects and Methods

Constructors for Auxilliary Classes

```
new Color(redness, greenness, blueness);
```
Mix a new color. Parameter values are numbers between 0 and 255.

```
new Location(x,y);
```
Build a coordinate pair object for the point (x,y).

Accessor Methods for Auxilliary Classes

```
someColor.getRed()
someColor.getGreen()
someColor.getBlue()
```
Access any of the color values associated with a Color.

```
someLocn.getX()
someLocn.getY()
```
Access either of the elements of a coordinate pair.

```
someLocn.distanceTo( anotherLocation )
```
Determine the distance between two points.

Constructors for Graphic Objects

```
new FramedRect( x, y, width, height, canvas);
new FilledRect( x, y, width, height, canvas);
new FramedOval( x, y, width, height, canvas);
new FilledOval( x, y, width, height, canvas);

new FramedRect( corner1Locn, corner2Locn, canvas);
new FilledRect( corner1Locn, corner2Locn, canvas);
new FramedOval( corner1Locn, corner2Locn, canvas);
new FilledOval( corner1Locn, corner2Locn, canvas);

new FramedRect( cornerLocn, width, height, canvas);
new FilledRect( cornerLocn, width, height, canvas);
new FramedOval( cornerLocn, width, height, canvas);
new FilledOval( cornerLocn, width, height, canvas);
```
The parameters to a rectangle or oval constructor describe the rectangle bounding the object to be drawn. You can either:

- Specify the coordinates of the rectangle's upper left corner together with the width and height, or

- Specify the coordinates of two opposite corners.

You can fill these shapes or just frame their perimeters.

```
new Line( startX, startY, endX, endY, canvas);
new Line( startLocn, endLocn, canvas);
```
A line is described by giving its end points.

```
new Text( "some message", x, y, canvas);
new Text( "some message", baseLocn, canvas);
```
The coordinates specify the leftmost point of the text's baseline.

Methods Available for All Graphic Objects

`someObject.move( xOffset, yOffset);`	Move an object relative to its current position.
`someObject.moveTo( x, y);` `someObject.moveTo( someLocn);`	Move an object to point specified by coordinates.
`someObject.contains( someLocn);`	Determine if an object's bounding box contains a point.
`someObject.hide();` `someObject.show();`	Make an object invisible or visible on the display.
`someObject.removeFromCanvas();`	Delete object from its canvas.

`someObject.sendForward();`
`someObject.sendToFront();`
`someObject.sendBackward();`
`someObject.sendToBack();`
	Alter the stacking order that controls how overlapping objects appear.

`someObject.getColor();` `someObject.setColor( someColor );`	Access or change an object's color.

Methods Available for All 2-D Graphic Objects (including Text, but not Line)

`someObject.getX();`
`someObject.getY();`
`someObject.getLocation();`
	Access coordinates of the upper left corner of an object's bounding rectangle.

`someObject.getWidth();` `someObject.getHeight();`	Access the dimensions of an object's bounding rectangle.

Methods Available for Resizable 2-D Graphic Objects (not Text)

`someObject.setWidth( newWidth);` `someObject.setheight( newHt);`	Change the dimensions of an object's bounding rectangle.

Mutator Methods for Lines

`someLine.setStart( someLocn );`
`someLine.setEnd( someLocn );`
`someLine.setEndPoints( startLocn, endLocn);`
	Change either or both of a line's end points.

Mutator Methods for Text Objects

```
someText.setText( "new message" );
```
Change the characters displayed.

```
someText.setFontSize( pointSize );
```
Change the font size used.

```
someText.setBold();
someText.setItalic();
someText.setPlain();
```
Change the style in which text is displayed.

```
someText.setFont( someFont )
```
Change the font used.