Write your Point (Object) Class and use a PointMain (Client) classe to test it.  There’s code on the Object & Contructor slides from yesterday but try to build them from memory as much as possible!  Make sure you **update your PointMain class to test your additions as you go.**

1. public Point(int x, int y)

Until we have have covered the Constructor presentation, just use the simple creation of your point and assignments. Then later create the Constructor (slides) method to make a point with coordinates (x, y).

1. public void translate(int dx, int dy)

Move the point by a given the amounts dx (added to the x value) and  dy (added to the y value).

1. public boolean isVertical(Point other)

Returns true if the given Point lines up vertically with the other Point; that is, if their x-coordinates are the same (equals).

1. public double distance(Point other)

Returns the distance between this Point and the given other Point. Look up the distance formula if you forget!

When you are done, implement the test code below to test your code to make sure it works.

/\* This Client Class tests out your Point Object Class to see if perfomrs

all the required methods correctly. Run this in lab to prove it works!

\*/

import java.awt.\*; // to use Graphics, Color

// Rememeber you need to have DrawingPanel.java compiled in your directory

public class PointTest {

public static void main(String[] args) {

// create two Point objects

Point p1 = new Point(50,30);

Point p2 = new Point(20,80);

// plot those two points with a connecting line & test them

System.out.println("Distance Between p1 & p2 is: " + p1.distance(p2));

System.out.println("Are p1 and p2 Vertical? " + p1.isVertical(p2));

System.out.println();

// Now shift p2 by 30, 20 and change its color to green

p2.translate(30, 20);

System.out.println("Now the Distance Between p1 & p2 is: " + p1.distance(p2));

System.out.println("Now are p1 and p2 Vertical? " + p1.isVertical(p2));