# **Assignment 18 – Swing II**

For this assignment, the method for creating the fractal seemed clear, but my first thought was about mix-ups in selecting the target coordinate as sets at random, so I looked into Points to group coordinates together and found what I was looking for. Googling to find a good way to randomly select one gave me this example using a List, and it worked so I used that.

The window size and initial coordinates for the equilateral triangle are declared, and a Point object is created for each coordinate set. A method called randomCoordinates() creates a list out of the Points and returns a randomly selected point. Another method called findHalfway() takes in two points and uses their x and y values to calculate the midpoint between them.

The paint method initializes a Point object called ‘current’ to the value of Point X. A for loop creates a Point object called ‘target’ and sets its value to the return from calling randomCoordinates(). ‘current’ is then set to the value returned by findHalfway(current, target). This was repeated 10,000 times and the output was faint, but at 100,000 it looks darker. I wanted to see if I could slow it down and googled how to delay. The Thread.sleep() was suggested, and was pretty neat with a 1 millisecond delay, but I commented it out.

