1. [200 pt] Show the sorting of integers graphically using the following algorithms:

   (a) Selection sort

   (b) Insertion sort

   (c) Bubble sort

   (d) Shell sort

   (e) Quick sort

   (f) Merge sort

   I'll prefer you doing this assignment in Java but any other language with graphical user interface (on Unix) will do, for example, C or C++ using X windows. You will start by creating a screen of 640×480 pixels. Using a random number generator, distribute numbers along X axis such that the magnitude of the number is represented by a line starting from 0 to this number (where the y-axis is between 0 and 1000, and each random number is also between 0 and 1000). As your algorithm swaps the numbers, reflect that on the screen.

Deliverable: Your code, in electronic format as well as hard copy. The e format must be submitted on admiral, using the handin script in my directory `~sanjiv/bin/handin`. If you do the entire assignment in your directory *lastname*.2 where *lastname* is your last name, you can submit it as

`~sanjiv/bin/handin` *lastname*.2 cs464 2