15-100   Moose Sections Homework 8

Start: **Wed 2.18.9**
Due: in class   Sat 2.28.9
Goal: Arrays #1

Course Web Site:
www.andrew.cmu.edu/course/15-100mooseNsquirrel

Assignment:
This is your first assignment with arrays. The arrays are already coded in the .pde file you are being given to use. There are three. All are originally commented out. Uncomment one of the arrays and write your code. If your code is correct, it must work with all of the arrays (one at a time).

There will be no draw( ) method in this program. Your methods will be called from the setup( ) method.

Add and call a method for each bulleted item below:
- Draw a graph representing the data in the array. The array has the y coordinate values in pixels. Your code must determine a reasonable value for the x coordinate values. You must do this in a manner that distributes the points along the entire width of the window. Hardwired x coordinate distances will receive zero credit. You can add or subtract small int values as offset values to help position the points, lines, and text. Such use of literal values is not considered "magic".
  The graph must be drawn with two components:
    - Each (x, y) point must be marked with a point that is larger and of a different color than the line that will connect the two points.
    - Each pair of points must be connected with a line that is smaller and of a different color than the point that marks each coordinate pair.
  Your points and lines must be spread over much of the window and NOT be clustered in one area.
- Label the y value of each point in a manner that the values do not obscure the points and that the points do not obscure the text.
- Place a green flag on the tallest point on the graph. If two points are the tallest, put a flag on one of them
- Place a red flag on the lowest point on the graph. If two points are the lowest, put a flag on one of them.
- Place a filled yellow circle on any planes in the graph. If there is more than one plane, all of the planes must have a yellow circle.
- Using text, display the total rise in the graph.
- Using text, display the total fall in the graph.

Feel free to change the background color and use other colors except for the two flags and circle that mark the high point, low point and any planes in the graph.

Handin:
We are back to the usual Saturday handin.

Sample:
Here is the output of Jim's graphs for the three arrays provided in the .pde file: