# Layout Managers

1. Make a Frame. Change the layout manager to FlowLayout with setLayout(new FlowLayout()). Add five buttons. Pop up the frame, resize it in various ways, and see what happens to the layout. As a starting point for this code, copy any of your previous exercises that used Frames, or, go to the "awt" project and grab the FrameExample2 class.

   Reminder: to kill a Frame that you started from within Eclipse, click on the red square in the Console tab at the bottom of Eclipse. (Or, copy my CloseableFrame and ExitListener classes into your project, then extend CloseableFrame instead of Frame.)

2. Make a Frame. Make 5 canvases, each with a different size and different background color. Drop one in each region of the frame (use the standard layout manager).

3. Make a tic-tac-toe Frame that looks something like this:
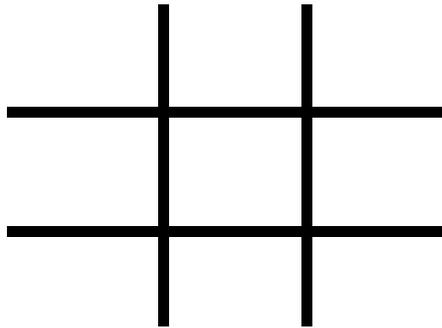
   The difference from the earlier exercise is that each of the 9 white regions should be a separate Canvas (the black "lines" are really just the underlying window showing through where there are no Canvases). If you feel inspired, you can easily add event handlers to the canvases so that they draw a large X or O whenever someone clicks on them.

4. Make another Frame. Make two rows of five buttons each. Assume that the window width is wide enough to hold at least 5 buttons, but not wide enough to hold 10 buttons.

5. Make another Frame. Make two rows of five buttons each. Have the buttons be in two rows (at the top of the Frame) even if the frame is wide enough to hold all 10 in one row.

6. Sketch out a GUI on paper, then try to implement something as close to it as possible. For instance, you might put a row of buttons down one side, then split the remainder into an image, a drawing area, a text field, etc.