Administrivia

- Reminder: Please keep the lab doors closed after hours. There have been reports of thefts.
- Homework 6 will be on the Web later today. Design due Thursday, code next Tuesday.
  Not all homeworks 4 and 5 are in — if you’re having trouble, come talk to me; if you’re just behind, try to catch up.
- My course next term (CSCI 3190, “Unix Power Tools”) — description linked from my home page.

Graphics in Java — Custom Components

- Predefined components (JButton, etc.) do a lot, but what if you want something that’s not provided? In particular, you want to control the image yourself?
- Make a custom component — define a subclass of a component that provides some of the needed functionality, and override the method that defines what’s displayed. E.g., subclass JPanel and override paintComponent, to include your code to “paint” the panel.
- Call repaint when ready to redisplay.

Custom Painting

- Method to override is
  public void paintComponent(Graphics g).
  g is a “graphics context” that you can draw on. (Actually it’s a Graphics2D.) Tutorial recommends first calling
  super.paintComponent(g).
- Can get dimensions of panel with getSize, getHeight, getWidth, getInsets.
- Can set colors, draw shapes, lines, text, etc., etc. — see Graphics and Graphics2D class. Coordinate system is similar to what you’re using in your game. See code in BasicBlock for simple example.
- General advice — look over the methods of Graphics and Graphics2D; if confused, follow links to tutorial(s) and look for a suitable example to adapt.

Let’s look at an example…
Minute Essay

- None — quiz 4.