Chapter 6 Continued

March 1, 2012

CMPSCI 121, Spring 2012

Introduction to Problem Solving with Computers

Prof. Learned-Miller

Problems with OWL-Java

- **Problem: Java window comes up, but nothing happens**
  - Confusing: scrolling makes coffee cup icon go away even though nothing is happening:

Problems with OWL-Java

- I tried:
  - Restarting OWL – didn't help
  - Restarting browser – didn't help
  - Rebooting computer – fixed the problem.

Problems with OWL-Java

■ One other thing:

■ I've noticed that problems arise when you change locations or possibly which network you're using. Not sure why.

Slow computer

- Problem: DrJava is very very slow.
  - Possible cause:
    - Virus detection software: McAfee, Norton, etc.
    - Solution: try turning it off.
  - Possible cause:
    - "Time Machine" (Mac only)
    - Try disabling it temporarily.
  - Might need to reboot after changing the settings.

Midterm!

- Wednesday, 7:30-8:45pm (room opens at 7:15)
  - THOM 104
  - THOM 102
  - THOM 106

Midterm!

- **Alternative times**
  - Monday, March 5, 7:30pm
  - Tuesday, March 6, 7:30pm
    BEFORE THE STANDARD MIDTERM!
- **Where?**
  - Computer Science building, room 142
  - MUST COME TO FRONT DOOR OF BUILDING (NORTH SIDE)!!!
    - We will be at the front door to let you between 7:15-7:45. If you don't get there by then, you won't be able to get in.

6

Midterm!

- Don't take the alternative midterm unless you have a class conflict, or a travel conflict.

- If you feel you have another legitimate reason, talk to me after class. Don't email me.

- You will be asked to write your reason for taking the alternative on the exam.

Midterm Review

- Monday's Discussion Section will be mid-term review.

- If you are taking the alternative mid-term, you can go to office hours today or tomorrow to get help reviewing with midterm.
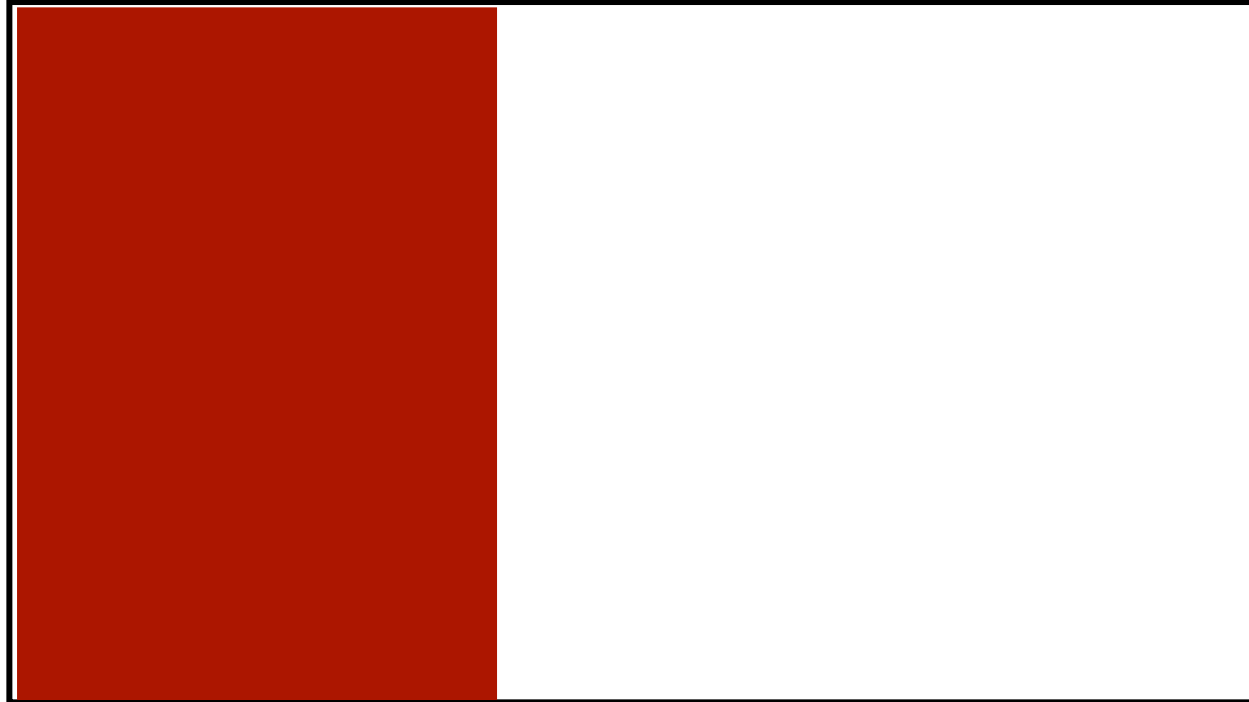
Midterm Review

- Midterm review will be posted on the course web site under the "Exams" page.
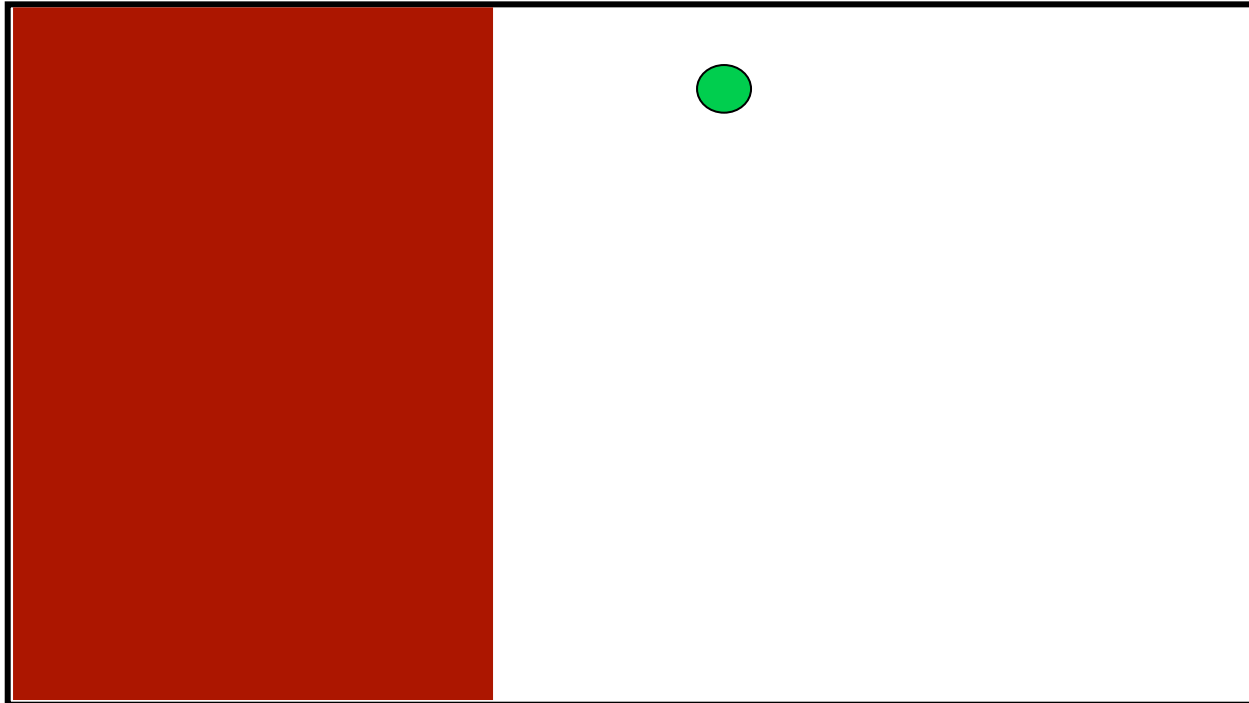- Check for this later today or early tomorrow.

Content of Mid-term

- Up through and including chapter 6.

- If you've done all the e-book, chapter exercises, and programming, you should be in good shape.

- I've asked the graders to have programming thru Prefix graded by Sunday.
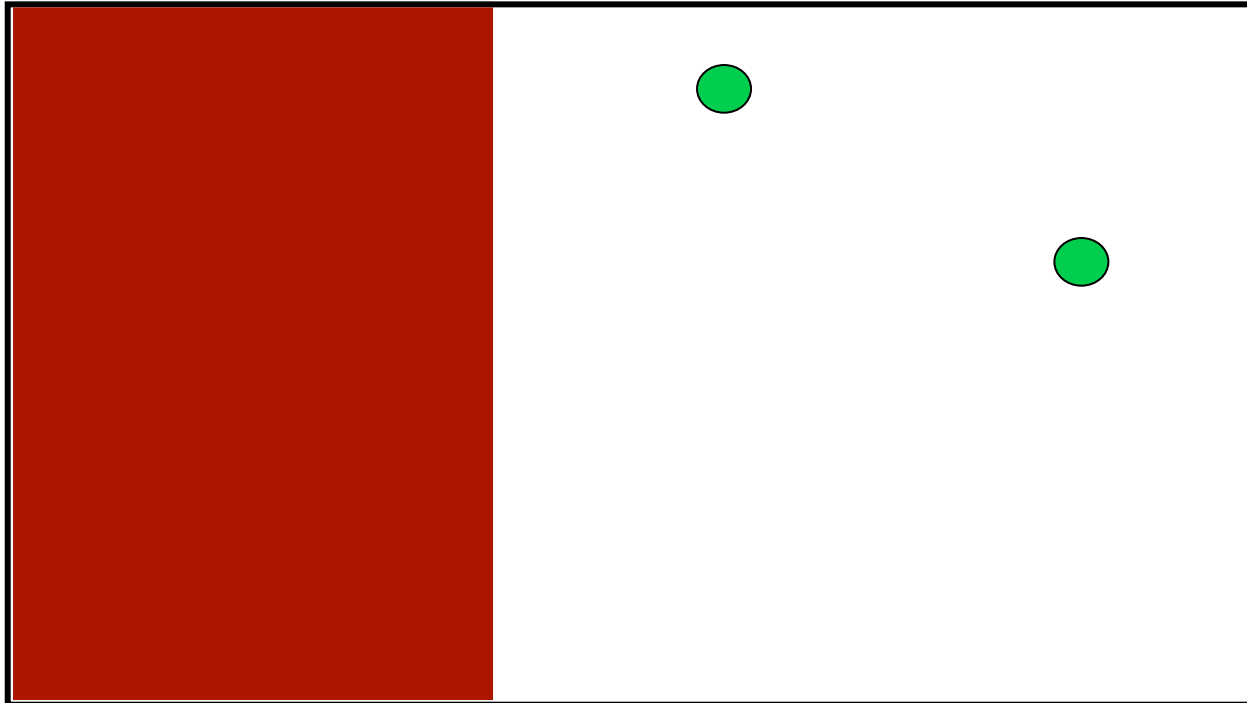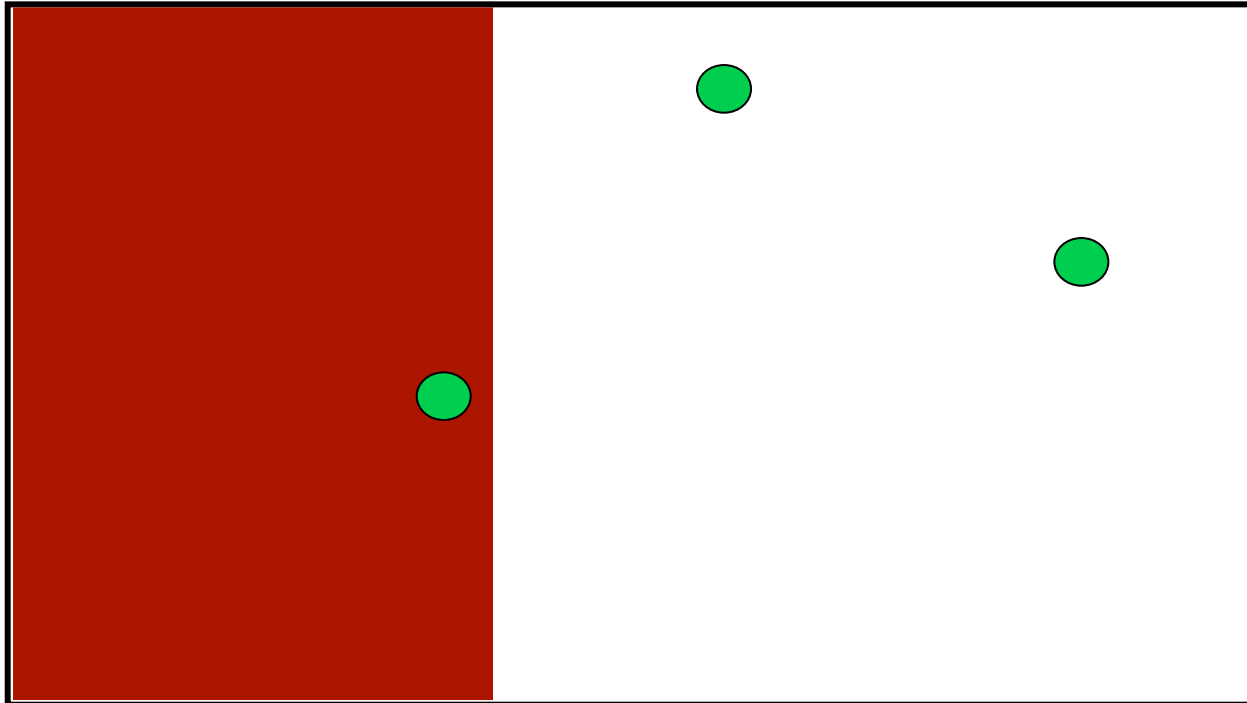
Practice.

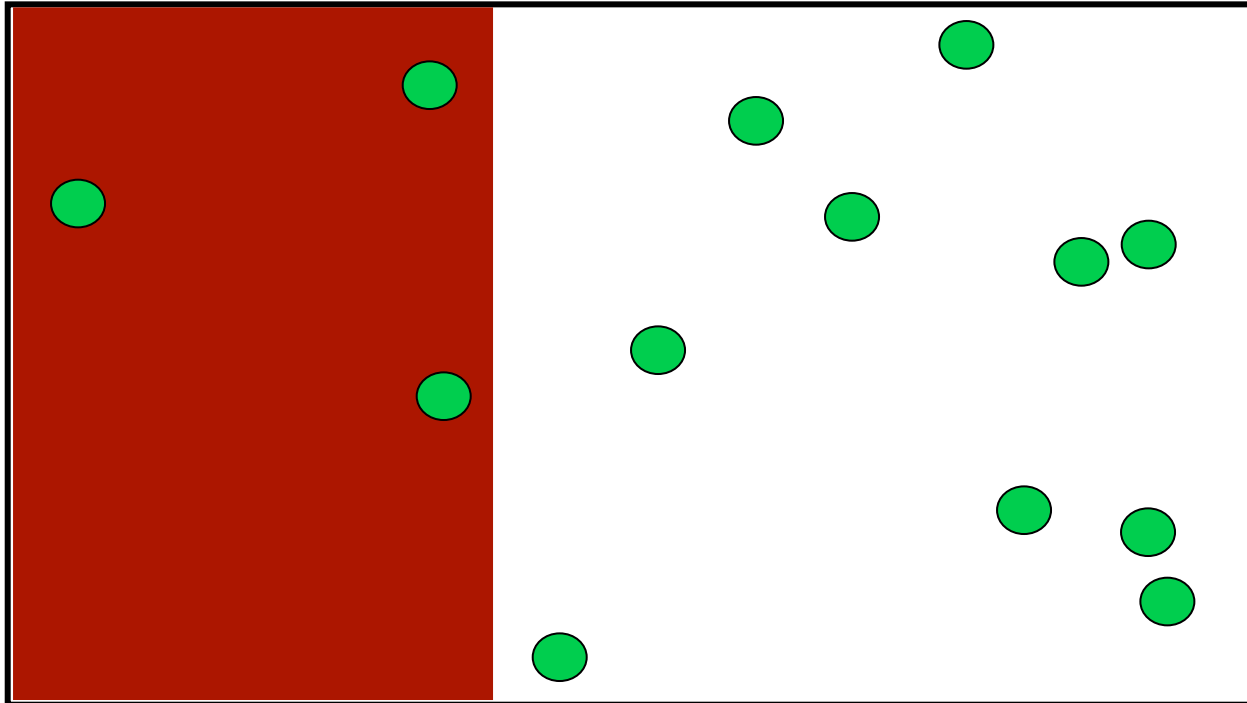# Estimating areas

Estimating areas

Estimating areas

Estimating areas

15

Estimating areas

Estimating PI

Area of quarter circle = pi/4

x axis

the origin

Length = 1.0 - the unit square

Area of circle = pi * 1.0 * 1.0 = pi = 3.14159

17

Estimating PI

```java
import javax.swing.JOptionPane;
public class RandomPi{
  public static void main(String[] args){
    int trials = 0;

    int inside = 0;
    String str = JOptionPane.showInputDialog("Enter number of trials");
    trials = Integer.parseInt(str);
    double x, y;
    for(int j = 0; j < trials; j++){
      x = Math.random();

      y = Math.random();
      if ((x*x + y*y) < 1.0)
        inside++;
    }
    JOptionPane.showMessageDialog(null, "pi guess: " + (double)(4*inside)/trials);
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DrJava

- The next slide shows the code I wrote in class to make a "myWindow" class which has a method like a Scanner class, but uses the JOptionPane to get input from the user.

myWindow.java

- import javax.swing.JOptionPane;

- public class myWindow {
- // Attributes
-
- // Constructor
-
- public myWindow() {
- }
-
- // Methods
- public int nextInt(String messageForJOP) {
- String str=JOptionPane.showInputDialog(messageForJOP);
- int i=Integer.parseInt(str);
- return i;
- }

- }