Announcements

- Read Chapter 10 Section 2 for next time
- Last day next Tuesday – do demoes

Research Study

- Your choice whether or not to participate
- You will be emailed an id number from Gail Smith (LSRC D128)
- I do not know your number or whether you choose to participate
- Benefit – Take a survey (test) that may help in preparing you for the final exam.

What we will do today

- Lecture on Chap 10, Section 1
  – Review of variables
- Classwork – more practice with lists
Review: Properties

- Where is the class?
- Where is the object?
- A class defines properties
- When an object is created it receives its own set of properties

State and Changing State

- State of object – each property stores info about the object
  - Example:
    - vehicle
    - isShowing
  - State change

Class-level Variables

- New variables can be added to the properties of an object
  - class-level
- The value of the variable can be changed
  - The variable is mutable.
  - Can be used to track state changes.

Inheritance

- If an object (and its new variable) are saved out and given a new name, a new class is created.
  - This is inheritance!
  - The new class inherits all properties and methods of the original class.
- Did this before by adding new methods to a class and saving it out.
Examples in book

• Switch
  – Add property “isOn”
  – Boolean type property

• Steerable Car
  – Add property “direction” for amount of turn on front wheels, from –10 to 10
  – Number type property

Review: What is the difference between the following?

• Class-level variable
• Local variable in method or function
• World-level variable
• Parameter

Classwork today – sort animals

Start

Put Tallest two in place …

All in place!