Announcements

- Review Chapter 6, loops
- No Reading Quiz for next time
Random Numbers

• Create a random number generator
  
  Random generator;

• Initialize it
  
  generator = new Random();

• Generate Random Numbers from 0 to 8
  
  x = generator.nextInt(9);

• How do you get random numbers from 1 to 10?
Inheritance

• Allows you to reuse code
• Start with a Class (superclass)
• Create another class that extends the class (subclass)
• The subclass can use the methods from the superclass or override them (use the same name, but the code is different)
• If the subclass redefines a superclass method, can still call the superclass method with the word “super” added.
Access to Instance Variables (state)

- **public**
  - Any class can access

- **private**
  - Subclasses cannot access

- **protected**
  - Subclasses can access
  - Other classes cannot access
Classwork today

- Back to bouncing balls
- Create a new BouncingSmiley using inheritance
- Create an ArrayList of bouncing balls and smileys
- Use random numbers for generating the balls and smileys