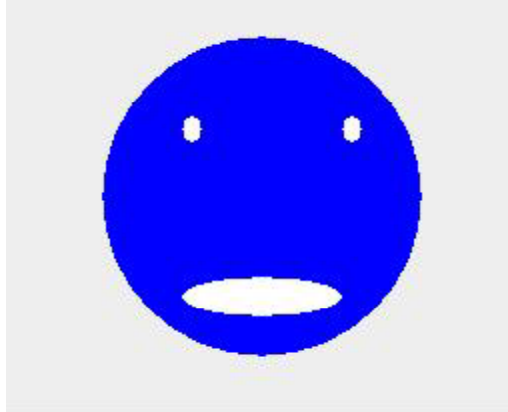


# CompSci 6

## Programming Design and Analysis



March 2, 2010

Prof. Rodger

# 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