Objectives: Introduction to objects
Object methods
'this.field'

Static Review -True/False?

0. A common use of static variables is to create constants. For example,
public static final String MESG = "Abort? Retry? Fail?"

1. T/F? Static methods are class methods.
2. T/F? Static methods require an object.
3. T/F? Class names usually start with an uppercase letter.
4. T/F? Methods names usually start with a lowercase letter.

Correct the mistakes:
5. You create static fields from inside a method.
e.g. To create a static variable you would write the following...

```
public class MyStringUtils {
   public static String addPadding(String s) {
          static char PADDINGCHAR =' ';
          while (s.length() < 10) { s =  s + PADDINGCHAR; }
          return s;
   }
```

6. T/F? You must call static methods using 'ClassName.methodName(*arguments*)'

7. T/F? Classssssss aka sssstatic variables are removed when you return from your method.

Goodbye static class methods. Hello OBJECTS

```
class Label {
   String name;
   int x, y;
   public void setName(String n) { this.name = n;}
   public void printMe() { System.out.println(this.name); }
}
Elsewhere...
    Label ptr = new Label ();
    ptr.setName("Fred");
    ptr.printMe();
```

Create a Pacman Ghost class, initialize it and use an instance method to make it move one unit to the right.

```
Dog d1 = new Dog();
Dog d2 = new Dog();

d1.x = 10; d1.y = 20;
// d2.x = ..., d2.y = ...

class Dog {
   int x,y;
// returns true if this dog is at same x,y location as the other dog
   public boolean canSniffButt(Dog other) {

      return _____________________________

   }
}
```

Create the House class so that the following code compiles and runs correctly.

```
House h = new House();
    h.setStreet("101 Main St");
    h.equals(otherHouse); returns true iff houses have same street string
```

Convert the following code to use Objects: Create a class Atom
Initialize each atom and call move

```
class Simulation {
public static String MESG1 = "Press Space Bar to start";

 public static void main(String[] args){
    int [] xpos = {11, 12, 13, 14}, ypos = {10, 10, 10, 10};
    //load images
    // Move Atoms to right
    for (int i = 0; i < 4; i ++) xpos[i] ++;
    // Display Atoms
    g = Ni.getGraphics();
    for (int i = 0; i < 4; i ++) {
            g.setColor(Color.BLUE);
            g.fillOval(xpos[i] , ypos[i] ....);
   }
  }
```