**CSE 142, Winter 2002. Homework 2, written part.**

Name: _____  Section and TA: _____

This writeup contains the same material as the web pages for the written part of homework 2, but reformatted to fit on a couple of pages that you can hand in.

1.  Suppose we start Jeva and then type in the following Java statements(the ">" is supposed to represent the prompt we see in Jeva) in the given order:

    **> int height = 10;**
    **> int width = height + 20 / height;**
    **> int length = width;**
    **> Oval sun = new Oval (20, 30, 50, height, Color.green, true);**
    **> Oval moon = sun;**

    Draw a picture (like those drawn in lecture and in the Dugan notes) that shows the relationship between the various names above and the objects they refer to. Use the space below.

2.  a. Some (or all) of the Java statements below would produce an error if typed into Jeva. For each wrong Java statement, state what kind of error it is (syntax or semantic) and *briefly* explain (one sentence) what is wrong. If there is nothing wrong with the statement, just write "OK" next to it. You may use Jeva to help with your answers, but try to figure it out *before* using Jeva. (Thought question that you don't need to turn in: For each of the incorrect Java statements, think about how you could change the statement in a small way so that it is legal Java.)

    *   char myGrade = 3.7;

    *   int 7 + 3 = radius;

    *   int height + width = 34 + 18 * 10;

    *   String myBankAccountBalance = "Harry";

    *   double qx43lzaa7 = 3.1415927;

- double pi = (7 + 8) * 3 - 15;

- String myName = 5 + "Sue";

- Rectangle box = new Rectangle (30, 50, 100, true);

b. Now suppose we start Jeva over and then type in the following Jeva statements in the order given.

**> int height = 10;**
**> int width = 30;**
**> Rectangle bigRedBox = new Rectangle (5, 10, 50, 25, Color.red, true);**
**> GWindow gw = new GWindow( );**

For each Java statement below, do the same as you did in part a of this question, i.e., indicate whether the statement is ok, or what sort of error it contains.

- Rectangle bigRedBox.addTo(gw);

- Rectangle bigBlueBox = new Rectangle (10, 20, height, width+10,Color.green,false);

- bigRedBox.moveTo (10 + height, height + bigRedBox.getX( ));

- bigRedBox.moveTo (5.7, height);

3. Suppose we define a new class as follows. (This is what the .java file would look like.)

```
import uwcse.graphics.*;
import java.awt.Color;

public class IceCreamCone {
    Oval scoop;
    Triangle cone;

    public IceCreamCone () {
        this.scoop = new Oval(50, 50, 40, 40, Color.green, true);
        this.cone = new Triangle(50, 90, 90, 90, 70, 50, Color.orange,true);
    }
}
```

a. What is the name of the class?

b. Circle the constructor for this class.

c. List the names of the instance variables, along with their types.