**// Bellevue College CS211**

**// Fall 2012, Exam 1 (100 pts)**

**// W.P. Iverson, instructor NAME:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

public static void main(String[] args) {

**// The following program DOES run, only because I comment out lines numbered 9 to 14.**

**// Lines 1 to 8, you indicate the output, these are 5 points each, first two are easy.**

int i = 42;

Integer j = new Integer(12); // 1. (is there output?)

Integer k = new Integer(42); // 2.

System.out.println(i < 42); // 3. (true or false?)

System.out.println(i == 42); // 4.

System.out.println(j.toString()); // 5.

System.out.println(j == k); // 6.

System.out.println(j.compareTo(13)); // 7.

System.out.println(j.compareTo(k)); // 8.

// The following will run fine, if you follow instructions below, then lines

// 9 to 14 could have // removed to reveal the correct answers (10 points each)

// Now we'll build a couple of objects, called first and second below

// Both Classes for these objects are incomplete (see attached)

// You get to complete the Class programming here to produce the following output

// Please write constructors that preload three Integers [8, 2, 5] upon instantiation

// HASArrayList first = new HASArrayList();

**// 9. Write the default constructor on attached page**

**// Be certain to included code to add these data**

// ISArrayList second = new ISArrayList();

**//10. Write the default constructor on attached page**

**// Again, use add() to get these data loaded**

// In problems 11. and 12., you decide what method(s) are be needed to get these to work

// And write that code on attached Class pages.

// CAREFUL: You cannot just concatenate ", " on each Integer, the last one is different!

**// System.out.println(first); // 11. Output needs to be [8, 2, 5]**

**// System.out.println(second); // 12. Output needs to be [8, 2, 5]**

// Separate issue here: Do you understand the Comparable interface?

// Integer one = first.get(0);

// Integer two = second.get(1);

**// System.out.println(one.compareTo(two)); // 13. Output is -1, 0, or 1 ???**

**// System.out.println(two.compareTo(one)); // 14. Output is -1, 0, or 1 ???**

// This class “is a” ArrayList via inheritance

public class ISArrayList extends ArrayList<Integer> {

}

// This class “has a” ArrayList (import java.util.ArrayList) as a member

public class HASArrayList {

private ArrayList<Integer> data;

}