

CS 102: Extra Problem, 10/7/09

1. Consider the Num class, which wraps an int:

```
public class Num{
    private int n;
    public Num(int x){n=x;}
    public void setNum(int x){n=x;}
    public int getNum(){return n;}
    public String toString(){return n+"";}
}
```

Modify the Num class to implement the Comparable interface. (In particular, you must implement a method

```
public int compareTo(Num num2)
```

which returns -1 if this is less than num2, returns 0 if this is the same number as num2, and returns 1 if this is greater than num2.)

You should also make the Num class implement the Comparable interface with the generic type Num as in

```
public class Num implements Comparable<Num>{
```

Your class should work with the following driver class:

```
import java.util.Scanner;
public class NumDriver{
    public static void main (String[] args){
        Scanner scan = new Scanner(System.in);
        System.out.print("Enter two integers: ");
        Num n1 = new Num(scan.nextInt());
        Num n2 = new Num(scan.nextInt());
        if (n1.compareTo(n2)<0)
            System.out.println(n1 + " is less than " + n2);
        else
            System.out.println(n1 + " is not less than " + n2);
    }
}
```