**CS 1050, Mr. Kramer Sample Exam #3**

**Write code in Java. Exam #3 is 130 pts.**

**1. 8 pts. Assume you have a main program already established. Write a program segment to initialize each element of the array nums to 1.0, given**

**double [][] nums = new double [9][6];**

**2. 16 pts. Write a method to input numbers, one per line, into the array M until the end of file or the array is filled. Note that your method must limit the input array to a certain maximum value that you decide. Additionally:**

**a. The number of lines read should be returned by the method.**

**b. The array M and the input file fileIn are parameters to the method.**

**That is, the calling program has the lines:**

**File inputFileName = new File(“Input.txt”);**

**Scanner fileIn = new Scanner(inputFileName);**

**int[] M;**

**3. 20 pts. Write a method findAvg to return the average of the values of array A. The array A and the length N should be parameters.**

**double [] A; int N;**

**4. 20 pts. Write a method findLargest to return the largest value in the array B. Use the array B as a parameter to the method.**

**int [] B;**

**5. 16 pts. Write a method inside a class (for which there is no main program). The method will contain a for loop that prints on one line to the screen only the elements in an array named ‘list’ that are > 0 and corresponding array of names ‘name’. (i.e., name[i] has the name of the corresponding to list[i].) It will also calculate the real average only of those values of ‘list’ that are > 0. Then print on the last line (after the for loop), as appropriate, the value of the average and the number of elements > 0, or a message indicating there are no elements in ‘list’ that are > 0. Assume:**

**public class Sample**

**{**

**private double average;**

**private int[] list; // A list of numbers, some might be > 0**

**private String[] name; // A list of names corresponding to list**

**private int num; // The number of elements in the arrays**

**// Your method goes here. Assume the Constructor loaded the arrays**

**}**

**6. 50 pts. Write a complete program (including import statements) to do the following:**

**Each data line contains an integer followed by a space and a name.**

**Process input lines until the end of the file. Create a printed report that consists of a table with the words GRADE REPORT as a heading. The columns of the report contain the name, the number, and a message. The message is:**

**GREAT, if the number is 87 or more;**

**Okay, if the number is between 65 and 86 inclusive,**

**and Poor otherwise.**

**At the bottom of the table, print, with appropriate messages, the number of names processed and the number of the values between 65 and 86 inclusive.If there are values in that range, print their average and the number of values in that range. If not, print a message that there is no average. Do not use arrays for storage. Use an if/else if. Comments are not necessary. Assume input is from the file c:\Input.txt and output is to the file c:\Output.txt**