Lab 1206

**1. Use one or more class definitions to store information about a gymnast in a competition. The information is divided into three parts, as follows:**

**The name of the gymnast, the weight of gymnast, the scores**

1). The name of the gymnast is divided into two parts: the first name and the last name. For example, the two parts could be “Susan” and “Korbut”.

2). The weight is an integer value (e.g. 103)

3). The score portion is divided up as follows: there are three individual judges’ scores and the average. Each individual score is an integer, and the average can hold decimal places.

To do:

a. Write the code necessary to define a class, called ***Gymnast***, which can be used to store all of the above information for a single gymnast.

b. Using the class definition, declare an object ***newguy***of class ***Gymnast****.*

c. Using the object ***newguy***, write one or more C++ statements which will read in values for the gymnast’s last name and three individual judge’s score.

d. Write one or more statements which will compute the average score and store the average in the object.

**2 For this question, assume that you want to use an input file called “myinput.txt” (which has already been created) and create an output file called “myoutput.txt”**

The input file consists of a series of integer values, separated by white space. For example, the file could start 7 12 4 …

Write a complete C++ program that reads the first N values one by one from the input file (assumer myinput.txt has more than N values).

For each value that you read in from the input file, add 10 to the value, and write the new value to the output file and also print the average value of all the values you get from the file myinput.txt.

(use the sample.cpp as a sample reference.)

Detailed requirement

1. You are required to put each value you read from the input file into an integer array of size N.

2. You are required to write a function that has two parameters (integer array, size of the array) that can be used to calculate the average of the values stored in the array. (use array as parameter, or use pointer as parameter)

3. Use the function defined in step 2 to calculate the average of the valued stored in the array of step 1 and print it on the screen.

4. Write a function that add 10 to each value stored in the array of step 1 and replace the array with the array (value 10 added). Ps. Think about array/pointer as function parameters.

5. Output the array you got from step 4 into the output file **“myoutput.txt”/**

**3. For this question, assume that you want to use an input file called “myinput.txt” (which has already been created) and create an output file called “myoutput.txt” (solution attached, please read and understand)**

The input file consists of a series of integer values, separated by white space. For example, the file could start 7 12 4 …

Write a complete C++ program that reads values one by one from the input file.

For each value that you read in from the input file, add 10 to the value, and write the new value to the output file.

For example, if the input file starts 7 12 4 …, then the program will write the following to the output file 17 22 14 …

The program should stop after reading and processing the first value greater than 75. Just before stopping, print to the screen (to standard output) the total number of integers read from the input file.