Homework #6 Due 2/19/06…

Problems
1) Write a C++ program that uses an array that is initialized with random data. Have the main program order your array from smallest to largest. Make sure the actual contents of the array have been moved. Do not just output the array in order. Have your program output the array index and the contents of the array before and after ordering.
2) Design a function that is passed two ‘limits’ and allows a user to input data only if the input is within (and including) the two ‘limits’. If the data is not valid, make the user try again. Once valid data is input, return that data to the main for outputting. Demonstrate that your function is operating properly by calling it at least twice with different arguments. Can you see how nice this function is for future programs?
3) Write a program that allows the user to input an entire line and then outputs the number of lowercase, # of uppercase, # of blanks, # of numbers, and the # of punctuation in the input.
4) Remember problem #1? Do problem #3 again, but add an output line that outputs the input in ascending order. For example: john would be output as: hjno.
5) Following the idea of problem #4 write a C++ program that allows the user to input an entire line and then outputs each different character input and how many of those characters were input.
6) Carefully read about number reading loops in your book. Type up and comment clearly listing 6.13 (cinfish.cpp) on page 259 of the book. Make sure you understand how it works.
7) Type up and comment clearly listing 6.14 (cingolf.cpp) on page 261 of the book.
8) Type up and comment listing 6.11 (enum.cpp) on page 255 of the book.
9) Write a program that accepts a single digit or a single digit character (your choice) and then outputs the appropriate written word for that digit input. Use if/else statements. For example: 8 would be output as: eight. Have the program repeat continuously until an input that is not a valid digit is input.
10) Do problem #9 again, but use a switch/case statement.