For your first individual programming project, write a C++ program as described in Exercise 2, page 111 of your textbook. As specified in the general instructions for these Programming Projects, be sure to label all output and supply ample comments. Note that this project (and all “Individual Projects”) must be your own work, not done in collaboration with your lab partners or anyone else.

Begin by analyzing the problem (i.e. make clear to yourself what inputs and outputs are required), and designing your program in pseudocode on a sheet of paper. The most crucial elements to include in your pseudocode will be the names and purposes of the variables you intend to use, the sequence of steps you will use to solve the problem, and the specific calculations that need to be done to compute the answers.

When you are convinced of the correctness of your design, write your program on a computer using C++. Begin this program (and every program in the future) with three lines of comments giving your name, the assignment number and date, and the number and title of this class (CS 1500 Computer Programming I). Follow this with a few lines of comments describing what the program does. In the program proper, use consistent indenting, line structure and white space, and use comments to introduce each function and section of code, as demonstrated in the text.

When you have successfully written, compiled, and tested your program, print a listing and a printout of a sample run to be turned in to me at the beginning of class on Monday. Please remove any perforated edges from the printouts before submitting them.