CIS 291 – Data Structures in C++ - Spring 2005
Homework #1

Function pening comment block and header due: BEGINNING of LAB on Tuesday, January 25th
Rest of HW #1 due: Thursday, January 27th, BEGINNING of class

<u>**Purpose**</u>: a SIMPLE homework, just to get you started programming for the semester, and practicing with some of this course's coding standards. It is NOT a typical CIS 291 homework.

<u>**How this will be turned in:**</u> For this FIRST HOMEWORK:
*   bring your OPENING COMMENT BLOCK and HEADER for the function described in step #1 below to LAB on PAPER by the beginning of lab next Tuesday, Janaury 25th. This will be used in the lab exercise.

*   turn in the 4 completed files, each printed on its OWN sheet of paper, by the beginning of lecture next Thursday, January 27th.

1.   Your goal: to write a function that will return the largest element in a passed array of integers. It must be within its own file.

Since I want you to follow the design recipe, first you will be writing the contract, header, purpose, and examples for this function. At this point, you only need to add a couple of small components to finish up the opening comment block. Do so, and print out the result at this point (opening comment block and function header). THIS is what you will bring to lab on Tuesday.

As long as you have printed this out, you can proceed with #2 <u>before</u> Tuesday!

2.   Now implement the function, using good style and following the course coding standards as discussed in lecture.

Write an appropriate .h file for this function, following the course's coding standards.

And, write an appropriate testing main function for this function, also in its own, separate file. This testing main function should run your function's examples such that the reader can see easily whether your example tests have passed or failed, just by looking at your testing main's output.

Run your testing main and debug/correct your function until you are satisfied with it.

When you are happy with it, run the testing main function one more time, redirecting its output to a file.

Print your function file, the .h file for that function, the testing main function file, and the redirected output file each on its OWN sheet of paper, with the NAME of the file printed WRITTEN on that piece of paper. Staple these together, and turn them in by the beginning of lecture on Thursday, January 27th.