Name:

Please remember you must follow instructions exactly in this course. Failure to follow these instructions will result in a failing grade on this quiz.

1. Write a C program that reads two floating-point numbers from the command line and assigns them to the floating-point variables *val1* and *val2*. Next, this program should iterate over the values: *x* = 0.00, 0.25, 0.5, 0.75, …, 10.00, and compute:

*output\_value = val1 \* x + val2*

Your main program should read the command line arguments (using atof()) and call a function called my\_equation. This function should be declared this way:

*float my\_equation(float val, float x, float b);*

and it should return the value “*val \* x + b*”.

Your main program should use a for loop to iterate over the values of *x*, pass argv[1] as the first argument, *val*, and argv[2] as the third argument, *b*.

In the main program, print the output value as follows:

*output (%f) = val1 (%f) \* x (%f) + b (%f)*

where the output value is the value your function computes, and the inputs are the corresponding values to the right of the “=”.

For example:

*p01.exe 1.0 2.0*

should produce:

*output (2.2500) = val1 (1.0000) \* x (0.25) + b (2.0000)*

Note that you must do the computation in a function call. You must use our standard makefile to compile and link your program. You must declare the function in a header file.

Your main program should be in a file named *p01.cc*. Your function should be in a file named *p01\_00.cc*. Your header file should be *p01.h*.

Submit your code in the usual place on the class server – *qu\_04/lastname\_firstname/p01/*.