## Lab 0 Report Name: Owen Blair

1. Explain the difference between using a #define statement to define a constant compared to declaring an initialized variable.
2. What happens if the line of code in the main function, “a = c - d; is changed to read “d = a - c;”? Explain why.

After the line is changed to reassign the value of d and you try to debug the main project you will get a build error. This is because the program is trying to redefine a variable that was previously assigned as a static variable. This means the program is trying to change the value of a variable that can’t be changed.

1. List and describe the ways local variables are created.
2. What information is required in a function prototype statement?

The information needed for a function prototype statement is the type the function uses, the name of the function, and the type(s) of the inputs of the function.

<return type> functionName(<variable type> varName, <variable type> varName2)

1. Using the MPLAB resources, determine how many processor clock cycles are required to complete the statements in the body of the *while(1)* loop in the main function? *(Hint: Use the Help documentation to investigate the "Stopwatch" tool.)*

