Lab 10
Fixed Point Arithmetic

This lab familiarizes the student with fixed point math routines that can be implemented in the Microchip PIC. This is a "simulation only" lab, so the microcontroller hardware is not required.

Create a new project with Lab10.asm. Step through the program in simulation mode. Add appropriate variables to a watch window to verify that the math routines work correctly.

1. Verify that the DoubleAdd routine correctly sets SumH/SumL = 0xF017
    (although there is an overflow that the routine does not take into account).

2. Verify that the DoubleSub routine correctly sets DiffH/DiffL = 0x0FD9.

3. Verify that the Multiply routine correctly sets MultCH/MultCL = 0x386A.

4. Verify that the Divide routine correctly sets Quotient = 0x19 and Remainder = 0x05.