CSCI-21 Lab #4 due 10/3/17

Please do the first part of this lab by yourself. Please check each other's work AFTER you have both completed it. Work in groups of two on the program.

Using the shift-and-add algorithm for multiplication from lecture and explained on my Web site, multiply the following. Shift the left-hand operand "right" and the right-hand operand "left". Check your work by multiplying the normal way. Show your work. Turn this in on paper on the due date.

\[ 26 \times 37 \quad 54 \times 12 \]

\[ 38 \times 16 \quad 17 \times 75 \]

Write a MIPS program to implement the multiplication by shifting and adding. Get two positive integers from the user, then multiply by using \texttt{sll} and \texttt{srl} instructions to manipulate the operands and \texttt{addu} to add as needed, then check the result by using the \texttt{mult} instruction. Print both results with some explanatory text (tell me which result is from which type of multiplication).

Check each other's work on the first part. I don't need to see that. Turn in the program the usual way.