CSCI-21 Lab #4 due 10/18/22

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.

`27 * 33`

`54 * 15`

`31 * 28`

`19 * 76`

Write a MIPS program to implement the unsigned multiplication by shifting and adding algorithm. Get two positive integers from the user (from the console), then multiply by using `sll` and `srl` instructions to manipulate the operands, `andi` with 1 to check for odd/even, and `addu` to add as needed. Then check the result by using the `mult` instruction. Print both results to the console 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.