

UNIVERSITY OF CALIFORNIA, DAVIS

EEC70 Department of Electrical and Computer Engineering  
Assembly Language and Computer Organization Winter 2004

**Program Assignment #1**

**Due on Friday January 30<sup>th</sup> at 11:59pm**

Write a program that prompts the user to input

- 1) Integer A
- 2) Integer B
- 3) Number of logical left shifts for A (nsa)
- 4) Number of logical right shifts for B (nsb)

The program should perform the following operations and output the result of each

R1 <= A << nsa  
R2 <= B >> nsb

Signed Addition and Subtraction

C <= R1 + R2  
C <= R1 - R2

UnSigned Addition and Subtraction

C <= R1 + R2  
C <= R1 - R2

Notes:

Use input.s to perform the input and output to your program.

You do not need to include input.s when you submit your program.

You do not need to perform any error checking on the input.

Just make sure the program does not crash.

You can use any standard text editor to write your code.

To learn how to use input.s to obtain input from the user or display the result, refer to the source code of gcm.s and read the comments.

Sample Run (in display window) **red** is user input.

Enter Integer A: **4**

Enter Integer B: **12**

Enter the number of left shifts for A: **1**

Enter the number of right shifts for B: **1**

R1: 8

R2: 6

Signed Addition: 14

Signed Subtraction: 2

Unsigned Addition: 14

Unsigned Subtraction: 2