

UNIVERSITY OF CALIFORNIA, RIVERSIDE
Department of Computer Science and Engineering
CS61 – Machine Organization and Assembly Language
Lab Assignment 2
Given August 8, Due 3:00 pm August 13, 2001

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1. In a LC-2 machine, variable A stored in memory addressed $\times 3100$, variable B stored in memory addressed $\times 3101$. Write a LC-2 machine language program (following the format in Figure 5.4 at Page 104 inside your Text book.) store (A+B) in memory addressed $\times 3102$ if $A < B$; store (A-B) in memory with same address if $A > B$. Your program should begin with the address $\times 3000$.

2. Suppose the following LC-2 program is loaded into memory starting at location $\times 30FF$:

30FF	1110001100000001
3100	0110010001000010
3101	1111000000100101
3102	0001010001000001
3103	0001010010000010

If the program is executed, what is the value in register 2(R2) at the end of execution?