

ELEC 385: Computer System Design
Homework #7
Due: March 4, 2015

1. Complete the attached tutorial. There is nothing to turn in here, just work through the tutorial to familiarize yourself with MARS.
2. Write a MIPS assembly language program to find the largest number among N 32-bit signed numbers, each represented in the 2's complement number system.
3. Convert your program into a function (subroutine). Include code for the main program, calling the function three times with different data and storing the result.

Comment each program. Use assembly directives to initialize *meaningful* test data, make room for results and use variable names within the code. Also, include a list of registers used with an explanation of how each is used.

Test each program using MARS. Once everything is working take a screen shot of the memory window clearly showing all data and results. Circle or color code each data set for easy identification and explain (in words and numbers) why your results are correct.

Submit a hard copy of your commented source file (.asm), a screen shot of the data and results in memory and your explanation of the results. This should be printed single-sided and stapled, of course. In addition, email your source file (.asm) to me at Barbara.Marino@lmu.edu before noon on the due date.