UNCC, Department of Electrical and Computer Engineering
ECGR4101/5101/6090, Fall 2004, Homework #2, Due: 9/3/03, at the beginning of class (20 points)

0. How long did this homework take you?

1. Read the Jim Turley article "The Two Percent Solution." Mr. Turley believes processors make up only a small percentage of semiconductor volume yet generate most of the revenue. In four lines of correct English, state why you agree or disagree with him. (4 points)

2. Read the Jim Turley article "The Death of ASICs." Mr. Turley believes the days of custom logic are numbered. In four lines of correct English, state why you agree or disagree with him. (4 points)

3. I have an LED whose average current drain is 5mA at 3v. I am using 250 mAH 1.5v cells as the power supply for this LED. If I want my LED to powered on for 150 hours continuously, how many cells do I need and in what configuration (i.e. how do I connect them)? (2 points)

4. For the SKP30262 board, what is the maximum addressable memory size? Can you, the user, store a value at memory location 00AA5h? Why or why not? (2 points)

5. Assume that the memory/register contents are as shown. Show the contents of the listed registers after ALL of the following instructions are executed. (8 points)

04FFh	23h
0500h	25h
0501h	27h
~	~
08FEh	11h
08FFh	12h
0900h	13h
0901h	14h

FB	0900h
R0	0100h
R1	789Fh
R2	1E78h

mov.b 0500h,R1L
mov.b -2[FB],R0L
mov.w 0[FB],R2
mov.b -1[FB],R0H

FB	
R0	
R1	
R2	

Before   **After**