UNC Charlotte, Department of Electrical and Computer Engineering
ECGR 4101/5101, Fall 2011, Homework #3
Due: 9/19/2011 at the beginning of class (20 points)

Assignment should be typed and a hard copy turned in to instructor.

1. Write the C code to set port 4, bits 0 through 3 to be input pins, and port 4, bits 4 through 7 to be output pins of our board. (2 points)

2. Write the C code to read the data on port 4, bits 0 through 3 and write the read data to port 4, bits 4 through 7 of our board. (4 points)

3. Write pseudocode to describe how capitalize all the lower-case vowels (not including y) in a string S and convert spaces to dashes. Do not use any function calls. (2 points)

4. Write a C function to implement the pseudocode of the previous question. (4 points)
    Assume:
    ```
    char S[80]; /* the string */
    ```

5. Jim Turley wrote the article "The Two Percent Solution" in 2002. Mr. Turley believed processors make up only a small percentage of semiconductor volume yet generate most of the revenue. That was nine years ago. Has anything changed since then? In up to ten lines of correct English, state why you agree or disagree with him, **and cite one current article or website to justify your points**. (8 points)