EE334 Computer Architecture          Name:_____

Homework Assignment 2                 Spring 2007                    Due: February 9, 2007


1. What hexadecimal number does this binary number represent?

   $1101\ 1110\ 1010\ 1111\ 1010\ 0011\ 1011_{two}$
   _____ _____ _____ _____ _____ _____ _____hex


2. What decimal number does the two's complement binary number in question 1 represent?
   (please show the steps to determine the decimal number)


3. Add these two binary numbers

   $\quad\ 0010\ 1101\ 1010\ 1011$
   $+\ 0100\ 0111\ 1101\ 0101$


4. Using two's complement perform the following arithmetic operation.

   $-\ \dfrac{356}{223}$


5. Using the same binary numbers in question 3, you are to multiply these numbers (use a binary multiplication)

   $\times\ \dfrac{0010\ 1101\ 1010\ 0011}{0010\ 0111\ 1001\ 1101}$