

First Name: _____ Last Name: _____

1. Find the 9th and 10th complement of following decimal numbers
 - a. 9815634
 - b. 7204870
 - c. 10000000
 - d. 00000000
2. Find the 16th complement of $(ACB3.B2)_{16}$
3. Perform subtraction on the following unsigned binary numbers using the 2's complement of the subtrahend. If the result should be negative, 2's complement it and affix a minus sign.
 - a. $11011 - 10111$
 - b. $100100 - 10101$
 - c. $101001 - 110000$
 - d. $101010 - 101011$
4. What does the following binary numbers represent in
 - a. Unsigned domain
 - b. Signed magnitude
 - c. Signed 2's complement
 - I. 01011101
 - II. 11011100
 - III. 11111111
5. Perform the following arithmetic operations in the indicated bases.
 - a. $(23.6)_8 \times (76.5)_8$
 - b. $(23.6)_{12} \times (76.5)_{12}$
 - c. $(23.6)_{16} \times (76.5)_{16}$