

## Assignment #2 - Computer Arithmetic

Name \_\_\_\_\_

In all of the exercises below, show your work for full credit.

1. Perform the following **binary** arithmetic. Verify your answer by converting each problem into decimal.

(Note: the last two are subtraction!)

$$\begin{array}{r} \text{a.} \quad 01101101 \\ + 00010001 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b.} \quad 00101110 \\ + 00111011 \\ \hline \end{array}$$

$$\begin{array}{r} \text{c.} \quad 10010001 \\ + 00111011 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d.} \quad 01111010 \\ + 00011111 \\ \hline \end{array}$$

$$\begin{array}{r} \text{e.} \quad 10111101 \\ - 00111011 \\ \hline \end{array}$$

$$\begin{array}{r} \text{f.} \quad 01011010 \\ - 00011111 \\ \hline \end{array}$$

2. Perform the following **octal** arithmetic. Verify your results by converting each problem into decimal.

$$\begin{array}{r} \text{a. } 417 \\ + 134 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b. } 7012 \\ + 1136 \\ \hline \end{array}$$

3. Perform the following **hexadecimal** arithmetic. Verify your results by converting each problem into decimal. (Note: the last two are subtraction!)

$$\begin{array}{r} \text{a. } A3 \\ + 47 \\ \hline \end{array}$$

$$\begin{array}{r} \text{b. } 7F5 \\ + 41C \\ \hline \end{array}$$

$$\begin{array}{r} \text{c. } 81A \\ - 59 \\ \hline \end{array}$$

$$\begin{array}{r} \text{d. } 54C \\ - 14F \\ \hline \end{array}$$