

In-Class Practice

Data Representation

BINARY - HEXADECIMAL

Convert the following binary numbers to hexadecimal:

$$1001\ 1000\ 0101\ 0111 = 9857_{16}$$

$$0000\ 0001\ 0011\ 1011 = 013B_{16}$$

Convert the following hexadecimal numbers to binary:

$$A3E2 = 1010\ 0011\ 1110\ 0010$$

$$37B0 = 0011\ 0111\ 1011\ 0000$$

Add the following binary numbers:

$$\begin{array}{r} 1001\ 1000\ 0101\ 0111 \\ 0000\ 0001\ 0011\ 1011 \\ \hline 1001\ 1001\ 1001\ 0010 \end{array}$$

Add the following hexadecimal numbers:

$$\begin{array}{r} A3E2 \\ 37B0 \\ \hline DB92_{16} \end{array}$$

BINARY - DECIMAL

Convert the following decimal values to binary:

$$63 = 1111$$

$$27 = 11011$$

Convert the following binary values to decimal:

$$0111\ 0101 = 117$$

$$0011\ 1011 = 59$$