

## Binary & Hexadecimal Math

### Binary Rules

- $0+0=0$
- $1+0=1$
- $0+1=1$
- $1+1=10$
- $1+1+1=11$
- $10-1=1$

### Hexadecimal Rules

- If 16 or greater: subtract from 16 to get column answer and carry 1
- Borrow 16 in subtraction

### **Binary Addition & Subtraction Problems**

$$\begin{array}{r} 101 \\ + \underline{11} \\ \hline \end{array}$$

$$\begin{array}{r} 111 \\ + \underline{111} \\ \hline \end{array}$$

$$\begin{array}{r} 1010 \\ + \underline{1010} \\ \hline \end{array}$$

$$\begin{array}{r} 11101 \\ + \underline{1010} \\ \hline \end{array}$$

$$\begin{array}{r} 11111 \\ + \underline{11111} \\ \hline \end{array}$$

$$\begin{array}{r} 110 \\ - \underline{10} \\ \hline \end{array}$$

$$\begin{array}{r} 101 \\ - \underline{11} \\ \hline \end{array}$$

$$\begin{array}{r} 1001 \\ - \underline{11} \\ \hline \end{array}$$

$$\begin{array}{r} 1101 \\ - \underline{11} \\ \hline \end{array}$$

$$\begin{array}{r} 10001 \\ - \underline{100} \\ \hline \end{array}$$

### **Hexadecimal Addition & Subtraction Problems**

$$\begin{array}{r} 2E9F \\ + \underline{947A} \\ \hline \end{array}$$

$$\begin{array}{r} 9DAD \\ + \underline{6E5E} \\ \hline \end{array}$$

$$\begin{array}{r} 9EF5 \\ + \underline{97BA} \\ \hline \end{array}$$

$$\begin{array}{r} 33F2 \\ + \underline{3A11} \\ \hline \end{array}$$

$$\begin{array}{r} A737 \\ + \underline{695F} \\ \hline \end{array}$$

$$\begin{array}{r} 832B \\ + \underline{AF1D} \\ \hline \end{array}$$

$$\begin{array}{r} B881 \\ + \underline{FFBD} \\ \hline \end{array}$$

$$\begin{array}{r} 39FB \\ + \underline{33FC} \\ \hline \end{array}$$

$$\begin{array}{r} C22A \\ + \underline{3D3D} \\ \hline \end{array}$$

$$\begin{array}{r} 15646 \\ - \underline{C89A} \\ \hline \end{array}$$

$$\begin{array}{r} 15805 \\ - \underline{C44C} \\ \hline \end{array}$$

$$\begin{array}{r} 112C7 \\ - \underline{A76E} \\ \hline \end{array}$$

$$\begin{array}{r} 14D88 \\ - \underline{953B} \\ \hline \end{array}$$

$$\begin{array}{r} 14C21 \\ - \underline{5FD3} \\ \hline \end{array}$$

$$\begin{array}{r} 140DD \\ - \underline{690D} \\ \hline \end{array}$$

$$\begin{array}{r} E3B7 \\ - \underline{A538} \\ \hline \end{array}$$

$$\begin{array}{r} 10508 \\ - \underline{60DD} \\ \hline \end{array}$$

$$\begin{array}{r} 12D92 \\ - \underline{7E53} \\ \hline \end{array}$$

$$\begin{array}{r} C326 \\ - \underline{56C2} \\ \hline \end{array}$$

$$\begin{array}{r} FF45 \\ - \underline{86CB} \\ \hline \end{array}$$