Operaciones entre Sistemas Numericos

SUMA

Acarreo

1010 10
111 7
10001 17

+ 111111 63
101010 42
1101001 105

105 ÷ 2 = 52 = 1
52 ÷ 2 = 26 = 0
26 ÷ 2 = 13 = 0
13 ÷ 2 = 6 = 1
6 ÷ 2 = 3 = 0
3 ÷ 2 = 1 = 1
1 ÷ 2 = 0 = 1

1101001

+ 1111 15
1010 10
11001 25

25 ÷ 2 = 12 = 1
12 ÷ 2 = 6 = 0
6 ÷ 2 = 3 = 0
3 ÷ 2 = 1 = 1
1 ÷ 2 = 0 = 1

11001

RESTA

1101 13
0110 6
0111 7

10 - 2 - 1 = 1

- 1110 14
0111 7
0111 7

111111 63
011010 26
100101 37

Unos la retroalimentación

Operaciones - Multiplicación, Suma, Resta de todos

+ 111011100 476
011011011 219
1010110111 695

695 ÷ 2 = 347 residuo = 1
347 ÷ 2 = 173 residuo = 1
173 ÷ 2 = 86 residuo = 1
86 ÷ 2 = 43 residuo = 0
43 ÷ 2 = 21 residuo = 1

21 ÷ 2 = 10 residuo 1
10 ÷ 2 = 5 residuo = 0
5 ÷ 2 = 2 residuo = 1
2 ÷ 2 = 1 residuo = 0
1 ÷ 2 = 0 residuo = 1

+ 100111100 314
001000001 65
101111101 379

379 ÷ 2 = 189 = 1
189 ÷ 2 = 94 = 1
94 ÷ 2 = 47 = 0
47 ÷ 2 = 23 = 1

23 ÷ 2 = 11 = 1
11 ÷ 2 = 5 = 1
5 ÷ 2 = 2 = 1
2 ÷ 2 = 1 = 0
1 ÷ 2 = 0 = 1

Hexadecimal

Suma

$$\begin{array}{r} FF \\ +\ B5 \\ \hline 1B4 \end{array}$$

$$\begin{array}{r} 5F \\ +\ 22 \\ \hline 81 \end{array}$$

Resta

$$\begin{array}{r} FF \\ -\ B5 \\ \hline 4A \end{array}$$

$$\begin{array}{r} 5F \\ -\ 22 \\ \hline 3D \end{array}$$

Multiplicación

$$\begin{array}{r} FF \\ \times\ B5 \\ \hline B4AB \end{array}$$

$$\begin{array}{r} 5F \\ \times\ 22 \\ \hline F96 \end{array}$$

División

$$FF \overline{)\,B5}\ \ 1$$

$$5F \overline{)\,22}\ \ 2$$

Resta

$$\begin{array}{r} 11101110\ 0 \\ -\ 01101101\ 1 \\ \hline 10000001 \end{array} \quad \begin{array}{r} 476 \\ 219 \\ \hline 257 \end{array}$$

$$\begin{array}{r} 11001100 \\ -\ 00110101 \\ \hline 11111001 \end{array} \quad \begin{array}{r} 314 \\ 65 \\ \hline 249 \end{array}$$

Multiplicación

$$\begin{array}{r} 111011100 \\ \times\ 011011011 \\ \hline 1001011100101100 \end{array} \quad \begin{array}{r} 476 \\ 219 \\ \hline 104244 \end{array}$$

$$\begin{array}{r} 11001100 \\ \times\ 00110101 \\ \hline 1001111010001000 \end{array} \quad \begin{array}{r} 314 \\ 65 \\ \hline 20410 \end{array}$$

División

$$111011100 \overline{)\,011011011} = 10.00101\,0001101$$

$$11001100 \overline{)\,00110101} = 11.11010010101101$$

Octal

Suma

$$\begin{array}{r} 64 \\ +\ 32 \\ \hline 116 \end{array}$$

$$\begin{array}{r} 57 \\ +\ 12 \\ \hline 71 \end{array}$$

Resta

$$\begin{array}{r} 64 \\ -\ 32 \\ \hline 32 \end{array}$$

$$\begin{array}{r} 57 \\ -\ 12 \\ \hline 45 \end{array}$$

Multiplicación

$$\begin{array}{r} 64 \\ \times\ 32 \\ \hline 150 \\ 234 \\ \hline 2190 \end{array}$$

$$\begin{array}{r} 57 \\ \times\ 12 \\ \hline 136 \\ 57 \\ \hline 706 \end{array}$$

División

$$\begin{array}{r|l} 64 & 32 \\ \hline 64 & 2 \\ \hline 0 & \end{array}$$

$$\begin{array}{r|l} 57 & 12 \\ \hline 48 & 1.7 \\ \hline 90 & \\ 84 & \\ \hline 6 & \end{array}$$