# Decimal a Binario

$173_{(10)} = xxxx_{(2)}$

$173/2 = 86 = R = 1$

$86/2 = 43, R = 0$

$43/2 = 21, R = 1$

$21/2 = 10, R = 1$

$10/2 = 5, R = 0$

$5/2 = 2, R = 1$

$2/2 = 1, R = 0$

$1/2 = 0, R = 1$

10110101 <-> 10101101

Arriba hacia abajo pero el resultado debe
ser el invertido

$1024_{(10)} = \quad _{(2)}$

$1024/2 = 512, R = 0$

$512/2 = 256, R = 0$

$256/2 = 128, R = 0$

$128/2 = 64, R = 0$

$64/2 = 32, R = 0$

$32/2 = 16, R = 0$

$16/2 = 8, R = 0$

$8/2 = 4, R = 0$

$4/2 = 2, R = 0$

$2/2 = 1, R = 0$

$1/2 = 0, R = 1$

10000000000

$\begin{array}{r} 86.5 \\ 2\,\overline{)173} \\ 13 \\ 10 \\ 0 \end{array}$

$\begin{array}{r} 512 \\ 2\,\overline{)1024} \\ 02 \\ 04 \\ 0 \end{array}$

$\begin{array}{r} 256 \\ 2\,\overline{)512} \\ 11 \\ 12 \\ 128 \end{array}$

$\begin{array}{r} 128 \\ 2\,\overline{)256} \\ 05 \\ 16 \\ 0 \end{array}$

$\begin{array}{r} 64 \\ 2\,\overline{)128} \\ 08 \\ 0 \end{array}$

$\begin{array}{r} 16 \\ 2\,\overline{)32} \\ 12 \\ 0 \end{array}$

$\begin{array}{r} 8 \\ 2\,\overline{)16} \\ 0 \end{array}$

# Binario a Hexadecimal

$100111_{(2)} = $ ~~$1 + 1 \times 2$~~

$= 1 + 0 \times 2 + 0 \times 2^2 + 1 \times 2^3 + 1 \times 2^4 + 1 \times 2^5$

$= 1 + 0 + 0 + 8 + 16 + 18$

$= 43$

$= 1 + 1 \times 2 + 1 \times 2^2 + 0 \times 2^3 + 0 \times 2^4 + 1 \times 2^5$

$= 1 + 2 + 4 + 0 + 0 + 32$

$= 39_{(10)}$

$39 / 16 = 2, R = 7$

$2 / 16 = 0, R = 2$

$$16\overline{)39} \quad \frac{3}{}$$

$= 27_{(16)}$

$= 100111_{(2)} = 39_{(10)} = 27_{(16)}$

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$1110001_{(2)} = 1 + 0 \times 2 + 0 \times 2^2 + 0 \times 2^3 + 1 \times 2^4 + 1 \times 2^5 + 1 \times 2^6$

$= 1 + 0 + 0 + 0 + 16 + 32 + 64$

$= 113_{(10)}$

$113 / 16 = 7, R = 1$

$7 / 16 = 0, R = 7$

$= 71_{(16)} = 113_{(10)} = 1110001_{(2)}$