

102 \rightarrow decimal

$(102)_2 \rightarrow$ binario

$(102)_{16} \rightarrow$ hexadecimal

$$\begin{aligned}\underline{102} &= 2 \times 10^0 + 0 \times 10^1 + 1 \times 10^2 \\ &= 2 + 0 + 100 \\ &= 102\end{aligned}$$

$$\begin{aligned}(102)_8 &= 2 \times 8^0 + 0 \times 8^1 + 1 \times 8^2 \\ &= 2 + 0 + 64 \\ &= 66\end{aligned}$$

$$\begin{aligned}(1011)_2 &= 1 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 \\ &= 1 \times 8 + 0 \times 4 + 1 \times 2 + 1 \times 1 \\ &= 11\end{aligned}$$

$$(1234)_8 \rightarrow \cancel{80} 1668$$

$$1 \times 8^3 + 2 \times 8^2 + 3 \times 8^1 + 4 \times 8^0 =$$

$$(1011011101)_2 \rightarrow 733$$

$$1 \times 2^9 + 0 \times 2^8 + 1 \times 2^7 + 1 \times 2^6 + 0 \times 2^5 + 1 \times 2^4 + 1 \times 2^3 + 1 \times 2^2 + 0 \times 2^1 + 1 \times 2^0 = 512 + 128 + 64 + 16 + 8 + 4 + 1 = 733$$

$$(A83D)_{16} \rightarrow 43069$$

$$15 \times 16^3 + 8 \times 16^2 + 3 \times 16^1 + 13 =$$

127 \rightarrow binario

$$\begin{array}{r} 127 \\ 07 \end{array} \begin{array}{l} \underline{12} \\ 63 \end{array} \begin{array}{l} \underline{12} \\ 31 \end{array} \begin{array}{l} \underline{12} \\ 15 \end{array} \begin{array}{l} \underline{12} \\ 7 \end{array} \begin{array}{l} \underline{12} \\ 3 \end{array} \begin{array}{l} \underline{12} \\ 1 \end{array}$$

$$(1111111)_2$$

$$64 + 32 + 16 + 8 + 4 + 2 + 1 = 127$$

55 \rightarrow binario

$$\begin{array}{r} 55 \overline{) 12} \\ 1 \\ \hline 25 \end{array} \quad \begin{array}{r} 27 \overline{) 12} \\ 1 \\ \hline 13 \end{array} \quad \begin{array}{r} 13 \overline{) 2} \\ 1 \\ \hline 6 \end{array} \quad \begin{array}{r} 6 \overline{) 2} \\ 0 \\ \hline 3 \end{array} \quad \begin{array}{r} 3 \overline{) 2} \\ 1 \\ \hline 1 \end{array}$$

MSB

$$(110111)_2 \rightarrow 32 + 16 + 4 + 2 + 1 = 55$$

$$55 \rightarrow \text{hex}$$

$$(37)_{16}$$

$$\begin{array}{r} 55 \\ 7 \end{array} \quad \begin{array}{r} 16 \\ 3 \end{array}$$

$$(37)_{16} \rightarrow 3 \times 16 + 7$$

$$(36)_{16} \rightarrow \text{octal}$$

$$\begin{array}{r} 54 \\ 6 \end{array} \quad \begin{array}{r} 18 \\ 6 \end{array}$$

$$(66)_8$$

$(4321)_8 \rightarrow \text{binario}$

\downarrow^{10}

$$4 \times 8^3 + 3 \times 8^2 + 2 \times 8 + 1 = 2257_{10}$$

$(\underline{1000} \underline{1101} \underline{0001})_2$

0 \rightarrow 000

1 \rightarrow 001

2 \rightarrow 010

3 \rightarrow 011

4 \rightarrow 100

5 \rightarrow 101

6 \rightarrow 110

7 \rightarrow 111

3 bits