

1) 156

Binario

Octal

Hexa

$$\begin{array}{r}
 156 \overline{) 2} \\
 \underline{16} 78 \overline{) 2} \\
 \underline{0} 18 39 \overline{) 2} \\
 \underline{0} 1 19 \overline{) 2} \\
 \underline{1} 9 \overline{) 2} \\
 \underline{1} 4 \overline{) 2} \\
 \underline{0} 2 \overline{) 2} \\
 \underline{0} 1
 \end{array}$$

$$10011100$$

$$\begin{array}{r}
 2 \overline{) 2114} \\
 \underline{2} 3 4 8
 \end{array}$$

$$10011100$$

$$\begin{array}{r}
 8+1 8+4 \\
 \underline{9C}_{16}
 \end{array}$$

$$10011100_2$$

2)

Decimal

$$\begin{array}{r}
 11 \\
 (1 \times 2^1) + (1 \times 2^0) \\
 2+1 \\
 3
 \end{array}$$

3) Binario

Octal

Decimal

$$10010$$

$$22$$

$$\begin{array}{r}
 10010 \\
 (1 \times 2^4) + (1 \times 2^1) \\
 16+2 \\
 18
 \end{array}$$

4) Binario

Octal

Decimal

$$1100$$

$$14$$

$$\begin{array}{r}
 (1 \times 2^3) + (1 \times 2^2) \\
 8+4 \\
 12
 \end{array}$$

5) Decimal

Octal

Hexa

$$\begin{array}{r}
 1101 \\
 (1 \times 2^3) + (1 \times 2^2) + 1 \\
 13
 \end{array}$$

$$1101$$

$$1101$$

$$1(1 \times 2^3) + 1$$

$$8+4+1$$

$$114+1$$

$$13$$

$$158$$

$$D$$

6) Binario

Hexa

Decimal

$$1010011$$

$$1010011$$

$$\begin{array}{r}
 64+16+2+1 \\
 83
 \end{array}$$

$$4+1 2+1$$

$$5 3$$

$$53_{16}$$

7) Binario

$$\begin{array}{r} 12312 \\ -3612 \\ \hline 113012 \\ 01512 \\ \hline 1712 \\ 1312 \\ \hline 11 \end{array}$$

1111011

Octal

$$\begin{array}{r} 1111011 \\ 1 \mid 4+2+1 \mid 2+1 \\ \quad 7 \quad 3 \\ \hline 173_8 \end{array}$$

Hexa

$$\begin{array}{r} 1111011 \\ 4+2+1 \mid 8+2+1 \\ \quad 7 \quad 11 \\ \hline 7B_{16} \end{array}$$

8) Decimal

11111

$$\begin{array}{r} 16+8+4+2+1 \\ 31 \end{array}$$

Octal

$$\begin{array}{r} 11111 \\ 2+1 \mid 4+2+1 \\ \quad 3 \quad 7 \\ \hline 37_8 \end{array}$$

Hexa

$$\begin{array}{r} 11111 \\ 1 \mid 8+4+2+1 \\ \quad 15 \\ \hline 1F \end{array}$$

9)

Binario

111101₂

Decimal

$$\begin{array}{r} 111101 \\ 32+16+8+4+1 \\ 61 \end{array}$$

Hexa

$$\begin{array}{r} 111101 \\ 2+1 \mid 8+4+1 \\ \quad 3 \quad 13 \\ \hline 3D \end{array}$$

10) Binario

101011

Decimal

$$\begin{array}{r} 101011 \\ 32+8+2+1 \\ 43 \end{array}$$

Octal

$$\begin{array}{r} 101011 \\ 4+1 \mid 2+1 \\ \quad 5 \quad 3 \\ \hline 53 \end{array}$$

11) Decimal

$$\begin{array}{r} 34412 \\ 14172 \\ -412612 \\ \hline 0120612 \\ 04312 \\ \hline 12112 \\ 1012 \\ \hline 0212 \\ 1312 \\ \hline 01 \end{array}$$

101011000

Octal

$$\begin{array}{r} 101011000 \\ 4+1 \mid 2+1 \mid 0 \\ \quad 5 \quad 3 \quad 0 \\ \hline 530 \end{array}$$

Hexa

$$\begin{array}{r} 101011000 \\ 1 \mid 4+1 \mid 8 \\ \quad 1 \quad 5 \quad 8 \\ \hline 158 \end{array}$$

17) Binario

Decimal

Octal

100000000

 2^8
256
100 000 000
 $410/0$
400

18) Binario

Hexa

Decimal

111

7

7

19) Decimal

Octal

Hexa

1001

10011001
 $8+1$
9

 11
11

 $8+1$
9

Parte 3

Convertir de decimal a binario

. 124,346 a binario

$$\begin{array}{r}
 124 \overline{) 12412} \\
 - 46212 \\
 \hline
 003112 \\
 11512 \\
 712 \\
 312 \\
 11
 \end{array}$$

$$\begin{array}{l}
 0,346 \times 2 = 0,692 \\
 0,692 \times 2 = 1,384 \\
 0,384 \times 2 = 0,768
 \end{array}$$

R = 1111100, 01

 $\begin{array}{l} \text{No} \\ \text{No} \end{array}$

. 25,81 a binario

$$\begin{array}{r}
 25 \overline{) 2512} \\
 - 1212 \\
 \hline
 1312 \\
 612 \\
 312 \\
 11
 \end{array}$$

$$\begin{array}{l}
 0,81 \times 2 = 1,62 \\
 0,62 \times 2 = 1,24
 \end{array}$$

R = 11001, 1

(2)