2^{12}	2^{11}	2^{10}	2^{9}	2^{8}	2^{7}	2^{6}	2^{5}	2^{4}	2^{3}	2^{2}	2^{1}	2^{0}
4096	2048	1024	512	256	128	64	32	16	8	4	2	1

$1001_{(2)} \longrightarrow 8 + 1 = 9_{(10)}$

$111011_{(2)} \longrightarrow 32 + 16 + 8 + 2 + 1 = 59_{(10)}$

$12_{(10)} \rightarrow$

12	2
0	6
0	3
1	1
1	0

$01100_{(2)}$

$56_{(10)} \rightarrow$

56	2
0	28
0	14
0	7
1	3
1	1
1	0

$0111000_{(2)}$

$112_{(10)}$ →

112	2	
0	56	2
	0	28	2
		0	14	2
			0	7	2
				1	3	2
					1	1	2
						1	0

$01110000_{(2)}$

Decimal	Binário	Octal
0	0000	0
1	0001	1
2	0010	2
3	0011	3
4	0100	4
5	0101	5
6	0110	6
7	0111	7
8	1000	10
9	1001	11

$107_{(8)}$ → $?_{(10)}$ →

1	0	7
8^3	8^2	8^1 8^0
128	64	8 1

$125_{(8)} \rightarrow (10)$

1 2 5
8^2 8^1 8^0
64 8 1

$(64 \times 1) + (8 \times 2) + (1 \times 5)$

$(=)\ 64 + 16 + 5 = 85_{(10)}$

$1024_{(8)} \rightarrow (10)$

1 0 2 4
8^3 8^2 8^1 8^0
512 64 8 1

$(512 \times 1) + (8 \times 2) + (1 \times 4)$

$= 512 + 16 + 4$

$= 532_{(10)}$

$(10) \rightarrow (2) \rightarrow 1024_{(10)} \rightarrow (?)$

1024	8	8	8	8
0	128	16	2	0
	0	0	2	

02000

$1024_{(10)} \rightarrow 2000_{(?)}$

$101\,111_{(2)}$ | $001\,100_{(2)}$

$5\quad 7_{(8)}$ | $1\quad 4_{(8)}$

$111\,010_{(2)}$

$7\quad 2_{(8)}$

---

(8) → (2)

$72_{(8)}$ → $7 = 111_{(2)}$

$2 = 010_{(2)}$

$(=) 111010_{(2)}$

$112_{(8)}$ → (2)

$1 = 0001$

$2 = 0010$

$112_{(2)}$ → $1\,0001\,0010$

$2A_{(16)} \rightarrow (10)$

$2A$

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

$2 \quad A$

$16^1 \quad 16^0$

11

$16 \times 2 = 32$

$3B_{(16)} \rightarrow (10)$

$3 \quad B$

$3_{(10)} \quad 11_{(10)}$

$(16 \times 3) + (1 \times 11) = 48 + 11 = 59$

$DB_{(16)}$

$D = 13$

$B = 11$

$(16 \times 13) + (11 \times 1)$

$\rightarrow 208 + 11$

$\in 219$

$58_{(10)} \rightarrow ?_{(16)}$

58 | 16
10 | 3 | 16
3 | 0

$(=) \quad 3\,10 \quad (=) \quad 3A_{(16)}$

$10100110_{(2)} \rightarrow {}_{(16)}$

1010 | 0110
A | 6

$A6_{(16)}$

$101101_{(2)} \rightarrow {}_{(16)}$

0010 | 1101
2 | E

$2E_{(16)}$

$10D_{(16)} \rightarrow {}_{(2)}$

1 | 0 | D
0001 | 0000 | 1101

$10D_{(16)} \rightarrow 100001101_{(2)}$

A | D
1010 | 1101

$213_{(6)} \rightarrow (10)$

$$\begin{array}{ccc} 2 & 1 & 3 \\ \downarrow & \downarrow & \downarrow \\ 6^2 & 6^1 & 6^0 \end{array}$$

$$(3 \times 6^0) + (1 \times 6^1) + (2 \times 6^2)$$

$$\Leftrightarrow (3 \times 1) + (1 \times 6) + (2 \times 36)$$

$$\Leftrightarrow 3 + 6 + 72$$

$$\Leftrightarrow 81_{(10)}$$

$15_{(10)} = 0000\,1111_{(2)}$

$-15_{(10)} = 1000\,1111_{(2)}$

$+ = 0$

$- = 1$

$$\begin{array}{r} 1\,1\,1\,1 \\ 1\,1\,0\,1 \\ +\ 1\,0\,1\,1 \\ \hline 1\,1\,0\,0\,0 \end{array}$$

$$
\begin{array}{r}
 {\scriptstyle 1}\ \ {\scriptstyle 1}\ \ {\scriptstyle 1} \\
1\ 1\ 1\ 0\ 1\ 0 \\
+\ 0\ 1\ 0\ 1\ 0 \\
\hline
1\ 0\ 0\ 1\ 0\ 0
\end{array}
$$

A	= 10
B	= 11
C	= 12
D	= 13
E	= 14
F	= 15
G	= 16

$F16_{(16)} \rightarrow {}_{(10)}$

$F = 15$

$G = 16$

$(15 \times 16) + (16 \times 16) =$

$\Leftrightarrow 240 + 256 = 496_{(10)}$

$CAFE_{(16)} \rightarrow {}_{(10)} \rightarrow {}_{(8)}$

$(12 \times 16) + (10 \times 16) + (15 \times 16) + (14 \times 16)$

$\Leftrightarrow 192 + 160 + 240 + 224$

$\Leftrightarrow 816_{(10)}$

816	8			
0	102	8		
	6	12	8	
		4	1	8
			1	0

01460