

$$\left(\begin{array}{cccc} 10^3 & 10^2 & 10^1 & 10^0 \\ \text{1000's} & \text{100's} & \text{10's} & \text{1's} \\ 3 & 7 & 2 & 8 \end{array} \right)_{10}$$

$$\begin{array}{r} 8 \\ + 1 \\ \hline 9 \\ \rightarrow \\ 1 \quad 9 \\ + 1 \\ \hline 10 \end{array}$$

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

$$\begin{array}{r} 1 \\ + 1 \\ \hline 2 \end{array}$$

$$\begin{array}{r} 2 \\ + 1 \\ \hline 3 \end{array}$$

$$\begin{array}{r} 3 \\ + 1 \\ \hline 4 \end{array}$$

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9

$$\begin{array}{cccc}
 & 5^3 & 5^2 & 5^1 & 5^0 \\
 & 125 & 25 & 5 & 1 \\
 (& 3 & 2 & 4 & 1 &)_5
 \end{array}$$

$$\begin{array}{r}
 \frac{0}{1} \\
 \frac{1}{2} \\
 \frac{2}{3} \\
 \frac{3}{4} \\
 \frac{14}{10} \rightarrow (5)_{10}
 \end{array}$$

0
1
2
3
4

$$\begin{aligned}
 & (3 \times 125) + (2 \times 25) + (4 \times 5) + (1 \times 1) \\
 & 375 + 50 + 20 + 1 \\
 & (446)_{10}
 \end{aligned}$$

$$(278)_{10} \rightarrow (2103)_5$$

$$\begin{array}{r} 278 \\ -250 \\ \hline 28 \\ -25 \\ \hline 3 \\ -3 \\ \hline 0 \end{array}$$

5^4	5^3	5^2	5^1	5^0
625	125	25	5	1
0	2	1	0	3

$$\left(\begin{matrix} 2^7 & 2^6 & 2^5 & 2^4 \\ 128 & 64 & 32 & 16 \\ 1 & 0 & 1 & 1 \end{matrix} \right)_2 = \left(180 \right)_{10}$$

$$\begin{array}{r} 2 \\ 128 \\ 32 \\ 16 \\ 4 \\ \hline (180)_{10} \end{array}$$

$$\begin{array}{r} 0 \\ +0 \\ \hline 0 \end{array} \quad \begin{array}{r} 0 \\ +1 \\ \hline 1 \end{array} \quad \begin{array}{r} 1 \\ +1 \\ \hline 10 \end{array} \rightarrow (2)_{10}$$

$$\begin{matrix} 128 & 64 & 32 & 16 & 8 & 4 & 2 & 1 \\ (1101 & 0111) & {}_2 = (215)_{10} \end{matrix}$$

$$\begin{array}{r} 128 \\ 64 \\ 32 \\ 16 \\ 8 \\ 4 \\ 2 \\ 1 \\ \hline (215)_{10} \end{array}$$

$$(211)_{10} = (11010011)_2$$

(D3)₁₆

$$\begin{array}{r}
 211 \\
 -128 \\
 \hline
 83 \\
 64 \\
 \hline
 19 \\
 16 \\
 \hline
 3 \\
 2 \\
 \hline
 1 \\
 1 \\
 \hline
 0
 \end{array}$$

256	128	64	32	16	8	4	2	1
0	1	1	0	1	0	0	1	1

$$\begin{array}{r}
 0000 \quad (0)_{10} \\
 + 0001 \\
 \hline
 0001 \quad (1)_{10} \\
 + 0001 \\
 \hline
 0010 \quad (2)_{10} \\
 + 0001 \\
 \hline
 0011 \quad (3)_{10} \\
 + 0001 \\
 \hline
 0100 \quad (4)_{10} \\
 + 0001 \\
 \hline
 0101 \quad (5)_{10} \\
 + 0001 \\
 \hline
 0110 \quad (6)_{10} \\
 + 0001 \\
 \hline
 0111 \quad (7)_{10}
 \end{array}$$

$$\begin{array}{r}
 0111 \quad (7)_{10} \\
 0001 \\
 \hline
 1000 \quad (8)_{10} \\
 + 0001 \\
 \hline
 1001 \quad (9)_{10} \\
 + 0001 \\
 \hline
 1010 \quad (10)_{10} \\
 + 0001 \\
 \hline
 1011 \quad (11)_{10} \\
 + 0001 \\
 \hline
 1100 \quad (12)_{10} \\
 + 0001 \\
 \hline
 1101 \quad (13)_{10} \\
 + 0001 \\
 \hline
 1110 \quad (14)_{10} \\
 + 0001 \\
 \hline
 1111 \quad (15)_{10} \\
 + 0001 \\
 \hline
 10000
 \end{array}$$

0000	(0) ₁₀	(0) ₁₆
0001	(1) ₁₀	(1) ₁₆
0010	(2) ₁₀	(2) ₁₆
0011	(3) ₁₀	(3) ₁₆
0100	(4) ₁₀	(4) ₁₆
0101	(5) ₁₀	(5) ₁₆
0110	(6) ₁₀	(6) ₁₆
0111	(7) ₁₀	(7) ₁₆

1000	(8) ₁₀	(8) ₁₆
1001	(9) ₁₀	(9) ₁₆
1010	(10) ₁₀	(A) ₁₆
1011	(11) ₁₀	(B) ₁₆
1100	(12) ₁₀	(C) ₁₆
1101	(13) ₁₀	(D) ₁₆
1110	(14) ₁₀	(E) ₁₆
1111	(15) ₁₀	(F) ₁₆

$$\left(\overset{16^1}{F} \overset{16^0}{C} \right)_{16}$$

$$(F \times 16) + (C \times 1)$$

$$(15 \times 16) + (12 \times 1)$$

$$240 + 12$$

$$\boxed{(252)_{10}}$$

128	64	32	16	8	4	2	1
1	1	1	1	1	1	0	0

$$\begin{array}{r}
 128 \\
 + 64 \\
 + 32 \\
 + 16 \\
 + 8 \\
 + 4 \\
 \hline
 252
 \end{array}$$