

①  $\Delta$  Binary  $\rightarrow$  Decimal.

$1011_2 \rightarrow (11)_{10}$   
 $1 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 = 8 + 0 + 2 + 1 = 11$   
 ~~$1 \times 2^3 + 0 \times 2^2 + 1 \times 2^1 + 1 \times 2^0 = 11$~~

$\div 10 = 2.56$

$\times 10 = 256.$

$1024_{10}$   
 $1 \times 10^3$   
 $0 \times 10^2$   
 $2 \times 10^1$   
 $4 \times 10^0$

$256_{10}$

decimal point

$11101011$

binary point

$\times 2 = 11101.1$

$\div 2 = 1110.111$

①

$$\underline{10101.11}_2 \xrightarrow{\begin{matrix} \nearrow 1 \times 2^1 \\ \rightarrow 1 \times 2^{-2} \end{matrix}} ( \quad )_{10}$$

$$1 \times 2^4 + 0 \times 2^3 + 1 \times 2^2 + 0 \times 2^1 + 1 \times 2^0 + 1 \times 2^{-1} + 1 \times 2^{-2}$$

$$= 16 + 0 + 4 + 0 + 1 + 0.5 + 0.25 = 21.75_{10}$$

$$25.6_{10} \quad \leftarrow 6 \times 10^{-1}$$

$$2^{10} = 1024 \quad \leftarrow$$

$$2^{10} \times 2^{10} = (2^{10})^2 = 1024 \times 1024$$

$$\underline{\underline{2^{20}}} = 1 \text{ MEG}$$

$$2 \times 10^1 + 5 \times 10^0 + 6 \times 10^{-1} = 25.6$$

$$\begin{array}{r} 1111 \\ 15 \\ \hline 1000 \\ 8 \end{array}$$

$$\begin{array}{r} 111 \\ 7 \\ \hline 10000 \\ 16 \end{array}$$

$$11 \quad 1000 \quad (-1) = 1111 \quad \uparrow$$

$$1000000$$

$$32$$

$$\begin{array}{r} 111 \\ \hline 1000 \end{array}$$

2

$$2^2 = 4$$

$$2^3 = 8$$

$$2^4 = 16$$

$$2^5 = \underline{32} \quad \cancel{64}$$

$$2^6 = \underline{64} \quad \cancel{128}$$

$$2^7 = 128$$

$$2^8 = 256$$

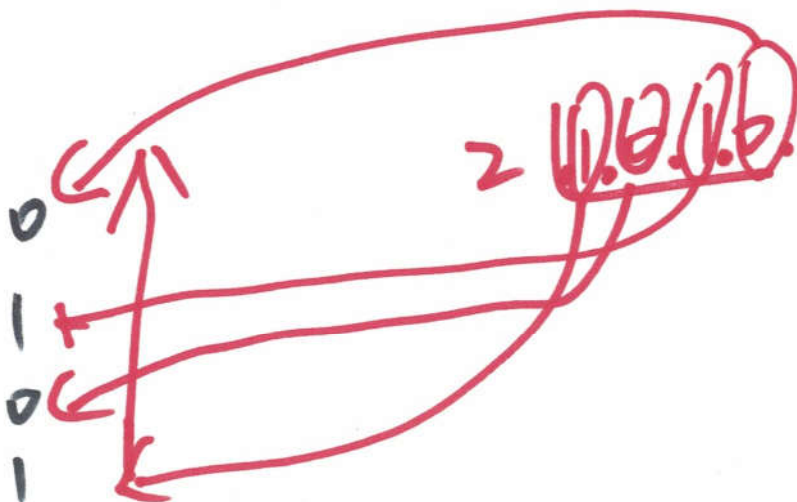
$$2^9 = 512$$

$$2^{10} = 1024$$

(3)

$$10_{10} \rightarrow (1010)_2$$

$$\begin{array}{r} 2 \overline{) 10} \\ 2 \overline{) 5} \\ 2 \overline{) 2} \\ 2 \overline{) 1} \\ 0 \end{array}$$



$$12.625_{10} \rightarrow (1100.1010)_2$$

$$\begin{array}{r} 2 \overline{) 12} \\ 2 \overline{) 6} \\ 2 \overline{) 3} \\ 2 \overline{) 1} \\ 0 \end{array} \quad \begin{array}{c} 0 \\ 0 \\ 1 \\ 1 \end{array} \quad \uparrow$$

1100.

$$\begin{array}{r} 1/2 \overline{) 0.625} = 0.1010 \\ 1/2 \overline{) 0.25} \quad \uparrow \quad 1 \\ 1/2 \overline{) 0.5} \quad \quad \quad 0 \\ 1/2 \overline{) 0.0} \quad \quad \quad 1 \\ 0 \quad \quad \quad 0 \end{array} \quad \downarrow$$

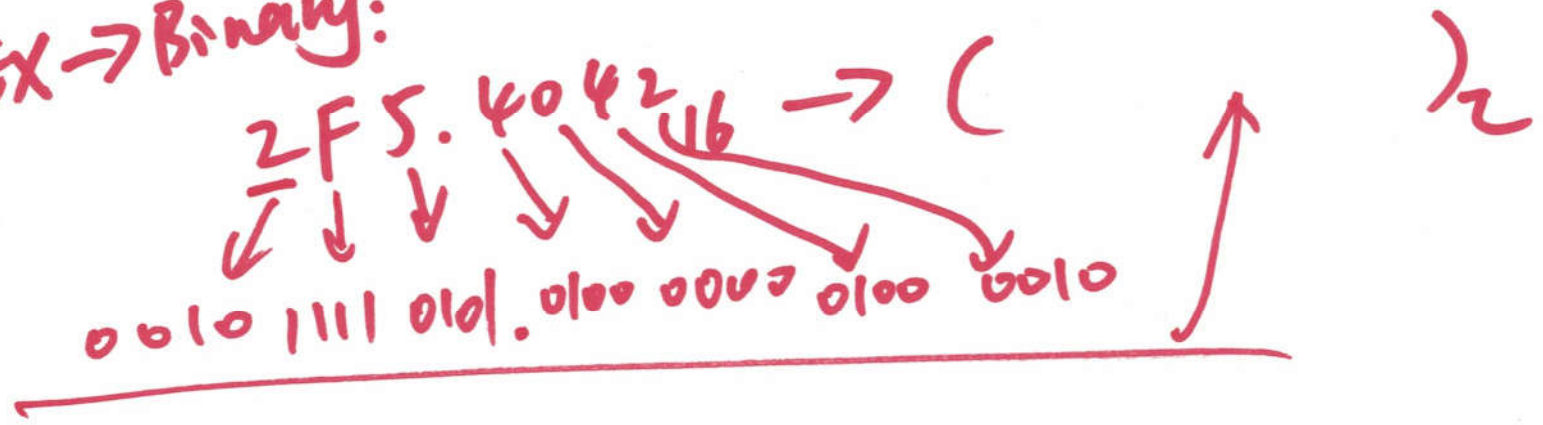
$$\underline{\underline{757.25}}_{10} = (2F5.4042)_{16}$$

Hex point  
.....

16	757	5	↑
16	47	15	
16	2	2	
	0		

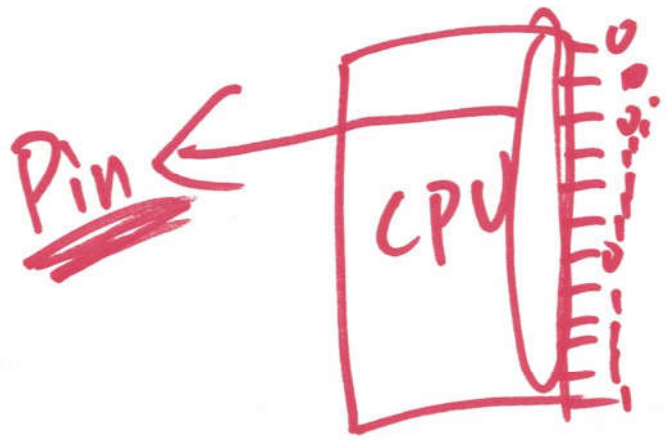
1/16	0.25	10	
1/16	<del>04</del> .016	4	↓
1/16	0.256	0	
1/16	<del>04</del> .096	4	
1/16	4.536	1	
	8.576	8	

△ HEX → Binary:



Pin = 2FEF ; ↑↑↑↑

0010 1111 1110 1111



⑥



111010110001. 0110<sub>2</sub>

→ C 7<sub>8</sub>

7 2 6 1 . 3 8

C 7<sub>16</sub>

E B 1 . 6<sub>16</sub>

①

$$\begin{array}{r} 1111 \\ + 1010 \\ \hline 11001 \end{array}$$

$$\begin{array}{r} 1111 \\ - 1010 \\ \hline 0101 \end{array}$$

$$\begin{array}{r} 1010 \\ - 1111 \\ \hline 0111 \end{array}$$

(2)