

→  $(5473)_{10} = ( )_2$  (Using weighted Method)

• This number converted into binary.

$2^{11}$	$2^{10}$	$2^9$	$2^8$	$2^7$	$2^6$	$2^5$	$2^4$	$2^3$	$2^2$	$2^1$	$2^0$		
2048	1024	512	256	128	64	32	16	8	4	2	1		
												$2^{13}$	$2^{12}$
												8192	4096

$$\begin{aligned}
 (5473)_{10} &= 4096 + 1024 + 256 + 64 + 32 + 1 \\
 &= 2^{12} + 2^{10} + 2^8 + 2^6 + 2^5 + 2^0 \\
 &= (1010101100001)_2
 \end{aligned}$$

→  $(1234)_{10} = ( )_5$

This number converted into pental.

$5^4$	$5^3$	$5^2$	$5^1$	$5^0$
3125	625	125	25	1

$$(1234)_{10} = 625 + 125 + 25 + 5 + 1$$

$$= 5^4 + 5^3 + 5^2 + 5^1 + 5^0$$

$$= ? \times 5^4 + ? \times 5^3 + ? \times 5^2 + ? \times 5^1 + ? \times 5^0$$

$$\begin{aligned}
 &= 1 \times 625 + 4 \times 125 + 4 \times 25 + 1 \times 5 + 4 \times 1 \\
 &= 625 + 500 + 100 + 5 + 4
 \end{aligned}$$



$$= 1 \times 5^4 + 4 \times 5^3 + 4 \times 5^2 + 1 \times 5^1 + 4 \times 5^0$$

$$= 1 \times 1 + 4 \times 1 + 4 \times 1 + 1 \times 1 + 4 \times 1$$

$$= (14414)_5$$

$$(1234)_{10} = ( )_8$$

This number converted into octal.

$$8^4 \quad 8^3 \quad 8^2 \quad 8^1 \quad 8^0$$

$$4096 \quad 512 \quad 64 \quad 8 \quad 1$$

$$(1234)_{10} = 512 + 64 + 8 + 1$$

$$= \cancel{8000} 8^3 + 8^2 + 8^1 + 8^0$$

$$= \cancel{8000} ? \times 8^3 + ? \times 8^2 + ? \times 8^1 + ? \times 8^0$$

$$= ? \times 512 + ? \times 64 + ? \times 8 + ? \times 1$$

$$= 2 \times 512 + 3 \times 64 + 2 \times 8 + 2 \times 1$$

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

$$= 2 \times 1 + 3 \times 1 + 2 \times 1 + 2 \times 1$$

$$= (2322)_8$$



$$\rightarrow (1234)_{10} = ( \quad )_{16}$$

This number converted into hexa-decimal.

$16^3$	$16^2$	$16^1$	$16^0$
4096	256	16	1

$$(1234)_{10} = 256 + 16 + 1$$

$$= 16^2 + 16^1 + 16^0$$

$$= ? \times 16^2 + ? \times 16^1 + ? \times 16^0$$

$$= ? \times 256 + ? \times 16 + ? \times 1$$

$$= 4 \times 256 + \overset{D}{\cancel{13}} \times 16 + 2 \times 1$$

$$= 4 \times 16^2 + D \times 16^1 + 2 \times 16^0$$

$$= 4 \times 1 + D \times 1 + 2 \times 1$$

$$= (4D2)_{16}$$