

Binary \rightarrow Decimal

$\rightarrow (1010110)_2$

$\rightarrow (000000)_2$

$\rightarrow (0,1,2,3)_4$

Decimal
(0-9)

$$\begin{array}{ccccccc} 1 & 0 & 1 & 1 & 0 & 1 & 1 \\ \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow & \uparrow \\ 2^6 & 2^5 & 2^4 & 2^3 & 2^2 & 2^1 & 2^0 \end{array}$$

$$\rightarrow 64 + 0 + 16 + 8 + 0 + 2 + 1$$

$$\rightarrow \underline{90} \text{ Ans}$$

$$\begin{array}{ccccc} 1 & 0 & 1 & 1 & 1 \\ 2^4 & 2^3 & 2^2 & 2^1 & 2^0 \end{array}$$

$$16 + 0 + 4 + 2 + 1$$

22 Ans

Decimal to Binary

43 \rightarrow

$$\begin{array}{r|l} 2 & 43 \\ \hline 2 & 21 \rightarrow 1 \\ 2 & 10 \rightarrow 1 \\ & 5 \rightarrow 0 \end{array} \uparrow$$

$2^5 \ 2^4 \ 2^3$
(1 0 1)

1
0

(10)

$$\begin{array}{r} 2^2 2^1 2^0 \\ 011 \end{array})_2 \underline{17}$$

2
8
2

2	100	
2	50	→ 0
2	25	→ 0
2	12	→ 1
2	6	→ 0
2	3	→ 0
2	1	→ 1
2	0	→ 1

2	10	→ 1
2	5	→ 0
2	2	→ 1
2	1	→ 0
2	0	→ 1

$(1100100)_2$

64
 32
 4

 100

2
1
43 Am