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→ Number System ←

① Decimal → Base 10 → 0 - 9

② Binary → Base 2 → 0 - 1

③ Octal → Base 8 → 0 - 7

④ Hexadecimal → Base 16 → 0 - F

Where 10 → A
11 - B
12 - C
13 - D
14 - E
15 - F

÷ Conversion System ÷

① $X_m \rightarrow Y_{10}$

② $Y_{10} \rightarrow X_m$

Binary
↓
Decimal
↓
Hexadecimal

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→ Binary ko Decimal — (I)

" 0 1 0 1 1 0 0 1 0 1 "
↑

→ $1 \times 2^8 + 0 + 1 \times 2^6 + 1 \times 2^5 + 0 + 0 + 1 \times 2^2 + 0 \times 2^1 + 1 \times 2^0$

→ $256 + 64 + 32 + 4 + 1$

→ 357_{10}

→ Decimal ko Binary — (II)

$357_{10} \rightarrow (?)_2$

2	357	1
2	178	0
2	89	1
2	44	0
2	22	0
2	11	1
2	5	1
2	2	0
2	1	1
	0	

$(357)_{10} \rightarrow (0101100101)_2$

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→ Digit Extraction ←

(a) number % 10 → unit digit
Ex :- 57428 ↓ 8 will show.

(b) number / 10 → unit place remove
Ex :- 57428
↓
will remove

→ Convert String into number.

num → "2, 5, 7, 4, 8".

(1) → 0 + 2 → 2

(2) → 2 × 10 + 5 → 25

(3) → 25 × 10 + 7 → 257.

(4) → 257 × 10 + 4 → 2574

(5) → 2574 × 10 + 8 → 25748.

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✗ → Change number Position

Convert 256 → 7256

$7 \times 1000 + 256$

→ 7256.

✗ → Reverse String to number

num → "2, 5, 6, 7, 8" to

8765

① $0 + 2 \times 10^0 \rightarrow 2$

② $2 + 5 \times 10^1 \rightarrow 52$

③ $52 + 6 \times 100^2 \rightarrow 652$

④ $652 + 7 \times 1000^3 \rightarrow 7652$.