

Hello gamers

I'm gonna give you some binary and some decimal imma need you to translate into the opposite. Show some work (even if it's just listing what value the place is, the math you went through behind dec to binary, etc, just something to show that you didn't just go "binary to decimal" in google)

$$5 = 101$$

$$\begin{aligned} 2^2 + 2^0 &= 5 \\ 4 + 1 &= 5 \end{aligned}$$

$$10 = 1010$$

$$\begin{aligned} 2^3 + 2^1 &= 10 \\ 8 + 2 &= 10 \end{aligned}$$

$$32 = 100000$$

$$\begin{aligned} 2^5 &= 32 \\ 32 &= 32 \end{aligned}$$

$$294 = 100100110$$

$$\begin{aligned} 2^8 + 2^5 + 2^2 + 2^1 &= 294 \\ 256 + 32 + 4 + 2 &= 294 \end{aligned}$$

$$00100011 = 35$$

$$\begin{aligned} 2^5 + 2^1 + 2^0 \\ 32 + 2 + 1 &= 35 \end{aligned}$$

$$00010010 = 18$$

$$\begin{aligned} 2^4 + 2^1 \\ 16 + 2 &= 18 \end{aligned}$$

$$00110111 = 55$$

$$\begin{aligned} 2^5 + 2^4 + 2^2 + 2^1 + 2^0 \\ 32 + 16 + 4 + 2 + 1 &= 55 \end{aligned}$$

$$11111110 = 254$$

$$\begin{aligned} 2^7 + 2^6 + 2^5 + 2^4 + 2^3 + 2^2 + 2^1 \\ 128 + 64 + 32 + 16 + 8 + 4 + 2 &= 254 \end{aligned}$$

Ez part; fill out this chart for the correct hex representation
It's shuffled around so you can't just count 0-F hehehehehe

Dec	Hex
6	6
12	C
9	9
10	A
3	3
5	5
2	2
15	F
8	8
11	B
4	4
0	0
13	D
1	1
7	7
14	E