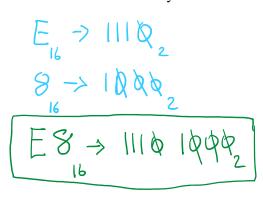
Govher Sapardurdyyyeva

Perform the following conversions (you must show your work to get full credit)

• 32 decimal to binary

• E8 hex to binary



 $| \rightarrow | ?8$ $| \rightarrow 69$ $| \rightarrow 32$ $| \rightarrow \rightarrow 0$ $| \rightarrow 8$ $| \rightarrow 8$ $| \rightarrow 0$

Decimal

• C5 hex to decimal

$$C \rightarrow || \phi \phi_{2} \qquad | \rightarrow || \phi \phi_{2} \qquad || \rightarrow || \phi \phi_{3} \qquad || \rightarrow || \phi \phi_$$

• 75 to 8bit sign magnitude (show binary and hex)

$$75/2 = 37(1)$$

$$37/2 = 19(1)$$

$$18/2 = 9(0)$$

$$9/2 = 9(1)$$

$$1/2 = 2(0)$$

$$1/2 = 9(1)$$

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Saturday, September 7, 2024

• -43 to 8bit sign magnitude (show binary and hex)

$$L|3/2 = 2|(1)$$

$$2|/2 = |0|(1)$$

$$10/2 = 5 (0)$$

$$5/2 = 2 (1)$$

$$2/2 = 1 (0)$$

$$1/2 = 0 (1)$$

$$1/2 = 0 (1)$$

• 79 to 8 bit 1's complement (binary and hex)

$$\begin{bmatrix} 2^{8} - 1 \end{bmatrix} - 79$$

$$255 - 19 = 176$$

$$255_{0} = 1111_{1111_{2}}$$

$$79_{10} = 110_{111_{2}}$$

• -79 to 8 bit 1's complement (binary and hex)

$$\frac{19_{10} \text{ With is comp:}}{|\phi||\phi|\phi|} = 4F_{16}$$

$$\frac{10|\phi||\phi|\phi}{|\phi|} = 4F_{16}$$

$$\frac{10|\phi||\phi|\phi}{|\phi|} = 4F_{16}$$

$$\frac{10|\phi||\phi|}{|\phi|} = 4F_{16}$$

$$\frac{10|\phi|}{|\phi|} = 4F_{16}$$

$$\frac{10|\phi$$

Saturday, September 7, 2024 4:16 P

- 127 to 8 bit 2's complement (binary and hex)
- -127 to 8 bit 2's complement (binary and hex)

$$-127_{10} = | p \phi \phi \phi \phi \phi |_{2} = 8 |_{16}$$

Friday, September 6, 2024 7:42 P

Find the ASCII values for the characters that are your two initials

• Show your initials

G5

• Show the ASCII code in each of their binary, hex, and decimal values

Char	Decimal	Hex	Binary
G	71	47	0100 0111
S	83	53	0101 0011

$$GS \rightarrow 4753_{16}$$
 $GS \rightarrow 7183_{16}$
 $GS \rightarrow 919891119199911_{2}$

For the number 349_{10} find the following representations:

• A Hex number (convert to base sixteen)

$$349/16 = 21.8125$$
, $0.8125 \times 16 = 13 = 1000 + 100$

Saturday, September 7, 2024 1:58 PM

• An ASCII string of characters (convert each digit to its ASCII value) (HINT: '0' is 30₁₆)

