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1 Convert 0xC01EC2 to decimal.

First convert to little endian to get 0xC21EC000. Then convert to binary.

$$0xC21EC000 = 11000010000111101100000000000000 \quad (1)$$

The first bit is 1 so the number is negative.

The exponent is 10000100 which is equal to 132 in decimal. Then offsetting by 127 we get $132 - 127 = 5$.

The mantissa is

$$\begin{aligned} 001111011000000000000000 &= 1 + 2^{-3} + 2^{-4} + 2^{-5} + 2^{-6} + 2^{-8} + 2^{-9} \\ &= 1.240234375 \end{aligned} \quad (2)$$

And

$$-1 \cdot 1.240234375 \cdot 2^5 = -39.6875$$

2 Convert 8.828125 to hex.

First convert it to binary. The number is positive so the first bit is 0.

$$1 < 8.828125/2^3 < 2$$

so adding the offset of 127 the exponent is $127 + 3 = 130$. In binary this is 10000010. $8.828125/2^3 = 1.103515625$. Ignoring the implicit 1 the mantissa is .103515625.

$$.103515625 = 2^{-4} + 2^{-5} + 2^{-7} + 2^{-9} \quad (3)$$

Encoded as binary the mantissa is 001101010000000000000000.

Putting the parts together gets 01000001000110101000000000000000 or in hex: 0x410D4000.

This answer is still in big endian, therefore the final answer in little endian form is 0x00400D41 or 0x400D41.