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Octal 72 → binary 111 010 ↓

0011 1010 ↓

3 A hex

hex 3A → decimal

$$\begin{aligned} 3A &= 3(16^1) + 10(16^0) \\ &= 3(16) + 10 \\ &= 48 + 10 \\ &= 58 \end{aligned}$$

(+)(+) = (-) overflow

(-)(-) = (+) overflow

$$\begin{array}{r} \begin{array}{cccc} 11 & & & \\ F7DC & = & 1111 & 0111 & 1101 & 1100 & (-) \\ + 24DC & = & 0010 & 0100 & 1101 & 1100 & (+) \\ \hline 11CB8 & = & 10001 & 1100 & 1011 & 1000 & (+) \end{array} \end{array}$$

→ yes carry ↑

→ saturated and modular

$$\begin{array}{r} \begin{array}{cccc} 1111 & & & \\ 7A14 & = & 0111 & 1010 & 0001 & 0100 & (+) \\ + 5D12 & = & 0101 & 1101 & 0001 & 0010 & (+) \\ \hline D726 & = & 1101 & 0111 & 0010 & 0110 & (-) \end{array} \end{array}$$

No carry

→ modular

yes overflow → saturation

7 = 7FFF

positive + positive = negative!

$$\begin{array}{r} \begin{array}{cccc} 11 & & & \\ 0122 & = & 0000 & 0001 & 0010 & 0010 & (+) \\ + FFFB & = & 1111 & 1111 & 1111 & 1011 & (-) \\ \hline 1011D & = & 0000 & 0001 & 0001 & 1101 & (+) \end{array} \end{array}$$

yes carry

→ saturated and modular

$$\begin{array}{r} \begin{array}{cccc} 11 & & & \\ 0885 & = & 0000 & 1000 & 1000 & 0101 & (+) \\ + 1118 & = & 0001 & 0001 & 0001 & 1000 & (+) \\ \hline 199D & = & 0001 & 1001 & 1001 & 1101 & (+) \end{array} \end{array}$$

No carry

→ saturated and modular