

$$3.75 = 3.C \text{ in hex} \\ = 0011.1100 = 3.6 \text{ in octal}$$

$$.7 = .7 \times 16 = 11.2 = .B3333 \dots \text{ in hex} \\ .2 \times 16 = 3.2 \\ = .101100110011001100110 \dots \text{ in binary} \\ = .\overline{5463146} \text{ in octal}$$

$$89.9 = 59.E6666 \dots \text{ in hex} \\ = 01011001.111001100110011001100 \dots \text{ in binary} \\ \begin{array}{r} .9 \\ \times 16 \\ \hline 14.4 \\ \times 4 \\ \hline 6.4 \end{array} = 131.7146314 \text{ in octal}$$

$$3.75 = 3.C = 0011.1100 = .111100 \times 2^2$$

$$0.111100000000000000000010 \\ \begin{array}{cccccccc} 7 & 8 & 0 & 0 & 0 & 0 & 0 & 2 \end{array}$$

$$.7 = .B333333 = .1011001100110011 \times 2^0$$

$$0.101100110011001100000000 \\ \begin{array}{cccccccc} 5 & 9 & 9 & 9 & 9 & 9 & 0 & 0 \end{array}$$

$$89.9 = 59.E6666 = 01011001.1110011001100110011$$

$$0.101100111100110011001100000111 \\ \begin{array}{cccccccc} 5 & 9 & E & 6 & 6 & 6 & 0 & 7 \end{array}$$

$$3.75 = 3C_{16} \times 16^{-1} = 3C_{16} \times 2^{-4} = 00111100$$

8 wD 4BP

$$.7 = B333 \times 16^{-4} = B333 \times 2^{-16}$$

$$= 1011001100110011$$

16 wD 16BP

$$89.9 = 59E666 \times 16^{-4} = 59E666 \times 2^{-16}$$

$$= 010110011110011001100110$$

24 wD 16BP

$$\begin{array}{r} 00111100 \\ + 00000111 \\ \hline 011111100 \\ 001111000 \\ 0011110000 \\ \hline 011010100 \end{array} = 011010 = 14_{16} = 26$$

$$\begin{array}{r} 1011001100110011 \\ \times 00000111 \\ \hline 0100110011001100101 \end{array} = 4$$

$$\begin{array}{r} 01011001110011001100110 \\ \times 00000111 \\ \hline 010011101010100110011001010 \end{array} = 275_{16} = 629$$

$$26 = 1A_{16} = 00011010 = 1.1010 \times 2^4$$

$$\begin{array}{ccccccc} 0 & 1 & 00 & 000 & 1 & 1 & 101 \\ \hline 4 & 1 & 0 & 0 & 0 & 0 & 0 \end{array}$$

$$4 = 4_{16} = 0100 = 1.00 \times 2^2$$

$$\begin{array}{ccccccc} 0 & 1 & 00 & 0000 & 1 & 000 & 0000 \\ \hline 4 & 0 & 8 & 0 & 0 & 0 & 0 \end{array}$$

$$629 = 275 = 1001110101 = 1.001110101 \times 2^9$$

$$\begin{array}{ccccccc} 0 & 1 & 00 & 0 & 1 & 00 & 000 & 1 & 1 & 101 & 0 & 100 \\ \hline 4 & 4 & 1 & 0 & 4 & 0 & 0 & 0 \end{array}$$