

# Comp Arc HW3

1.  $91_{10} + C6_{16}$

$C6_{16} = (12 \times 16) + 6 = 198_{10}$

$= 91_{10} + 198_{10} = \boxed{289_{10}}$

2.  $11_8 - 11_{10} = \cancel{9}_{80} - 11_{10} = \boxed{-2_{10}}$

3.  $12.3125_{10} + 0110_{I2Q2} = \boxed{1110001_{I4Q3}}$

$0110_{I2Q2} = 1.5$

$1/16 = 0.0625 \quad (0.0625)(5) = 0.3125$

$12_{10} = 1100_2 \quad 0.3125 = .101$

$12.3125_{10} = 1100101_{I4Q3}$

$1100101_{I4Q3} + 0001100_{I4Q3}$

$$\begin{array}{r} 1100101 \\ + 0001100 \\ \hline 1110001 \end{array}$$

4.  $5.75_{10} - 7.125_{10} = \boxed{-1.375_{10}}$

$$\begin{array}{r} \overset{4}{5.75}_{10} \\ - \overset{6}{7.125}_{10} \\ \hline -1.375 \end{array}$$

5.  $9_{10} \cdot 3_{10} = \boxed{27_{10}}$

$\cancel{4}$

$$6. \quad (-5)_{10} \cdot (-6)_{16} = \boxed{30_{10}}$$

$$-6_{16} = -6_{10}$$

$$7. \quad 9.5_{10} \cdot 2.625_{10} = \boxed{24.9375_{10}}$$

$$\begin{array}{r} \cancel{9.5} \quad \quad \quad \begin{array}{r} 1 \ 3 \ 1 \ 2 \\ 9.5 \\ \times 2.625 \\ \hline 475 \\ 190 \\ 570 \\ 190 \\ \hline 24.9375 \end{array} \\ * \end{array}$$