

Problem set 5 Ashraf 26977

$$\begin{array}{r} \text{Q1)} \quad \begin{array}{cccc} 2 & 3 & A & C \\ + & 4 & B & 8 & 0 \\ \hline 6 & F & 2 & C \end{array} \rightarrow \text{Ans} \end{array}$$

Q2) Denary  $\rightarrow$

$$\begin{array}{cc} \text{Q2)} & 16^1 & 16^0 \\ & 3 & 5 \end{array}$$

$$\begin{aligned} & 3(16) + 5(1) \\ & = 53 \end{aligned}$$

35 in Hex, 53 in denary

Q3)  $\begin{array}{l} D504 \\ 4A5B \\ 1DAC \\ 0000 \end{array}$

$$\begin{aligned} R[0] &= 1111 & R[1] &= 0001 \\ R[2] &= 1111 & R[3] &= 0001 \end{aligned}$$

014	10	7101
	11	7207
	12	7301
	13	1333
	14	2221
	15	1213
	16	0000

01 loaded in R[1]  
 07 loaded in R[2]  
 01 loaded in R[3]  
 → adding R[3] with R[2] and  
 loading value in R[3] = 2  
 subtracting value in R[2] with  
 R[1] and storing in R[2] = 7-1=6

R[3] = 128 (as repeating until R[2] = 0)

$$R[3] = 2$$

$$R[3] = 4$$

$$R[3] = 8$$

$$" = 16$$

$$" = 32$$

$$" = 64$$

$$" = 128$$