

الف) $A = +9 = 0111_2$

$B = +1 = 0001_2$

$\Rightarrow A + B =$

$$\begin{array}{r} 0111 \\ 0001 \\ \hline 0110 \end{array}$$

+1

+2

$-A = 1000$

+4

1100

جمع دو شیب منفی شده

overflow

$-B = 1111$

+2

$$\begin{array}{r} 1000 \\ 1111 \\ \hline 0111 \end{array}$$

+4

+1

بر ریز دارد
۷ بیتی

ب) $(11001001)_2 \Rightarrow (10001110)_2$

-2 because there is no solution

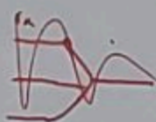
ج) $(11001001)_2 \Rightarrow (10101101)_{gray}$

-2 because there is no solution

د) $(\begin{matrix} 111 \\ 4 & 7 & 3 & 6 & 2 & 2 & 3 & 6 \\ 100 & 011 & 100 & 011 & 010 & 101 & 100 & 100 \end{matrix})_8 \Rightarrow (\begin{matrix} 010101110110000110 \\ 0101010101010101 \end{matrix})_2$

$\Rightarrow (2 \ 7 \ 7 \ 0 \ 4 \ 2 \ 9 \ 3 \ 8)_8$

+7



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