

a)

$$(29)_{10} = 16 + 8 + 4 + 1 = 2^4 + 2^3 + 2^2 + 2^0 = (011101)_2$$

$$(21)_{10} = 16 + 4 + 1 = 2^4 + 2^2 + 2^0 = (010101)_2$$

$$\begin{array}{r} 01111 \\ 011101 \\ 010101 \\ \hline \end{array}$$

$$0110010$$

+4

overflow

+1

$$(-29)_{10} = (100011)_2$$

+2

$$\begin{array}{r} 1011 \\ 100011 \\ 101011 \\ \hline \end{array}$$

$$(-21)_{10} = (101011)_2$$

+2

$$1001110$$

+4

overflow

+1

99463138
دانشیه ریاضی

د) 11 00 1001

(11 00 1001) Gray = (1000 1110) BSN
1 0 0 0 1 1 1 0

+2

-2 because there is no solution

ع) 11 00 1001

+2

-2 because there is no solution

(1 → 1 → 0 → 0 → 1 → 0 → 0 → 1) BSN = (10101101) Gray

1 0 1 0 1 1 0 1

د) 11001001

111010001001

1	1	1	1	1	0	0	1	1	0	0	1
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D₁ D₂

D₄

D₈

-8

	D ₃	D ₅	D ₆	D ₇	D ₉	D ₁₀	D ₁₁	D ₁₂	
P ₁	1	1	x	0	1	x	0	x	1
P ₂	1	x	0	0	x	0	0	x	1
P ₄	x	1	0	0	x	x	x	0	1
P ₈	x	x	x	x	1	0	1	1	1

$$8) (473406, 12234)_8 = (n)_{16}$$

+7

$$(473406, 12234)_8 \rightarrow (100111011100000110, 00101001001100)_2$$

$$\underline{00100111011100000110}, \underline{00101001001100} = (27706, 2938)_{16}$$

$$9) 101111001101$$

-8

1	0	1	1	1	1	0	0	1	1	0	1
D_1	D_2		D_4			D_8				D_{12}	

	D_3	D_5	D_6	D_7	D_9	D_{10}	D_{11}	D_{12}	
P_1	1	1	x	0	1	x	0	x	1 1 ✓
P_2	1	x	1	0	x	1	0	x	1 0 x
P_4	x	1	1	1	x	x	x	1	1 1 ✓
P_8	x	x	x	x	1	1	0	1	1 0 x

داده اصلی $\rightarrow 10101101$

که صفت خراب است

place of change : 10

$(0101)_2$

خطا در خانه ششم، و اتفاق افتاده است $1 \leftarrow 0$