

# 数系作业1

6.  $(62.25)_{10} \rightarrow (?)_2 \rightarrow (?)_8 \rightarrow (?)_{16}$

$$\begin{array}{r} 2 \overline{) 62} \quad 0 \\ \underline{131} \quad 1 \\ 115 \quad 1 \\ \underline{17} \quad 1 \\ \underline{13} \quad 1 \\ 1 \end{array}$$

$$\begin{array}{r} 111110.010 \\ \downarrow \downarrow \downarrow \\ 7 \quad 6.2 \\ 76.2 \end{array}$$

$$\begin{array}{r} 111110.0100 \\ \downarrow \downarrow \downarrow \\ 3 \quad E \quad 8 \\ 3E.8 \end{array}$$

而  $0.25 = 2^{-2}$

$\therefore (62.25)_{10} = (111110.01)_2 = (76.2)_8 = (3E.8)_{16}$

7.  $-54 = (10110110)_2$ ,  $-30 = (10011110)_2$

$\therefore -54 = [11001010]_{\text{补}}$

$-30 = [11100010]_{\text{补}}$

$-54 + -30 = [10101100]_{\text{补}}$  (逢~~十~~进位进位)

$= (11010100)_2 = -(64+16+4) = -84$

8.  $\begin{array}{r} 08D \\ + 03F \\ \hline 0CC \end{array}$

10 (10000110)<sub>8421</sub>, (10100100)<sub>余3码</sub>

$$= 2^7 + 2^2 + 2^1 \quad (10100100)_{8421}$$

$$= 134$$

$$= 2^7 + 2^5 + 2^2$$

$$= 128 + 32 + 4 = 164.$$

则 (10100100)<sub>余3</sub>

$$= 164 - 3 = 161.$$

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1	1	0	1	0	0	0	1
⊕	⊕	⊕	⊕	⊕	⊕	⊕	⊕
1	0	1	1	1	0	0	1

14 (+1011), (-1011), (+0.0011), (-0.0011)

原 01011      11011      0.0011      1.0011

反 01011      10100      0.0011      1.1100

补 01011      10101      0.0011      1.1101

19 (1) 10111001 ✗

(2) 01101010 ✓

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	3	5	6	
	↙	↓	↘	
01	0011	011	0101	011 0110