

晶片四甲

- 四. 8. (a) 笛摩根定理 (b) 吸收律 (c) 結合律
 (d) 累乘性 (e) 吸收律 (f) 吸收律

9. (W) $\overline{(A+B)(C+D)} = \overline{(A+B)} + \overline{(C+D)} = \bar{A}B + C\bar{D}$

10. (a) $\overline{A\bar{B}(C+\bar{D})} = \overline{A\bar{B}} + \overline{(C+\bar{D})} = \bar{A}+B+\bar{C}D$

(b) $\overline{AB(CD+EF)} = \overline{AB} + \overline{(CD+EF)} = \bar{A}\bar{B} + \bar{C}\bar{D} \cdot \bar{E}\bar{F}$

(c) $\overline{(A+\bar{B}+C+\bar{D})} + \overline{ABC\bar{D}} = \bar{A}B\bar{C}D + \bar{A} + \bar{B} + \bar{C} + \bar{D}$

38. (a) $\overset{0}{A}\overset{0}{B}\overset{0}{C} + \overset{0}{A}\overset{0}{B}\overset{1}{C} + \overset{1}{A}\overset{0}{B}\overset{1}{C}$ (b) $AC(\bar{B}+C) = \overset{1}{A}\overset{0}{B}\overset{1}{C} + AC$

	BC			
	00	01	11	10
A	0	1	1	0
1	0	1	0	1

得: $\bar{A}\bar{B} + \bar{B}C$

	BC			
	00	01	11	10
A	0	0	1	1
1	0	1	1	0

得: AC

(c) $\bar{A}(BC + B\bar{C}) + A(BC + B\bar{C}) = \bar{A}BC + \bar{A}B\bar{C} + ABC + AB\bar{C}$

	BC			
	00	01	11	10
A	0	1	1	1
1	1	1	1	1

得: B

39. (c) $DE\bar{F} + \bar{D}E\bar{F} + \bar{D}\bar{E}F$

	EF			
	00	01	11	10
D	0	1	1	0
1	0	0	0	1

得: $E\bar{F} + \bar{D}\bar{F}$

42. (a) $A + B\bar{C} + CD$ (b) $\bar{A}\bar{B}\bar{C}\bar{D} + \bar{A}\bar{B}\bar{C}D + ABCD + ABC\bar{D}$

	CD			
	00	01	11	10
AB	00	0	1	0
01	1	1	1	1
11	1	1	1	1
10	1	1	1	1

	CD			
	00	01	11	10
AB	00	1	1	0
01	1	1	1	1
11	1	1	1	1
10	1	1	1	1

得: $A + B\bar{C} + CD$

得: $\bar{A}\bar{B}\bar{C} + ABC$

