

Chapter 6

6-6.

A	B	C	D	W	X	Y	Z
0	0	0	0	0	0	0	0
0	0	0	1	0	0	0	1
0	0	1	0	0	0	1	0
0	0	1	1	0	0	1	1
0	1	0	0	0	1	0	0
0	1	0	1	0	1	0	1
0	1	1	0	0	1	1	0
0	1	1	1	0	1	1	1

A	B	C	D	W	X	Y	Z
1	0	0	0	0	0	0	0
1	0	0	1	1	1	1	1
1	0	1	0	1	1	1	0
1	0	1	1	1	1	0	1
1	1	0	0	1	1	0	0
1	1	0	1	1	0	1	1
1	1	1	0	1	0	1	0
1	1	1	1	1	0	0	1

$$W = A \cdot B + A \cdot C + A \cdot D$$

$$X = A' \cdot B + B \cdot C' \cdot D' + A \cdot B' \cdot C + A \cdot B' \cdot D$$

$$Y = A' \cdot C + C \cdot D' + A \cdot C' \cdot D$$

$$Z = D$$

$$; W = A \cdot (B + C + D)$$

$$; X = (A + B) \cdot (B + C + D) \cdot (A' + B' + C') \cdot (A' + B' + D')$$

$$; Y = (A + C) \cdot (C + D) \cdot (A' + C' + D')$$

$$; Z = D$$

