

1

$$X_1 = F = A'B' + AC' + BD' + CD.$$

$$F = A'B' + C'D' + AD + BC.$$

$$F = A'D' + B'D + AC' + BC.$$

$$F = A'C + B'C' + BD' + AD.$$

$$F = A'D' + B'C' + CD + AB.$$

$$F = A'C + B'D + C'D' + AB.$$

X1A X1B X1C X1D

2

1

$$X_2 = F = A' + C' + B'D' + BD.$$

X2A X2B

$$X_3 = F = A'B' + BC' + AD' + CD.$$

$$F = A'B' + C'D' + AC + BD.$$

$$F = A'C' + B'C + AD' + BD.$$

$$F = A'C' + B'D' + CD + AB.$$

$$F = A'D + B'D' + BC' + AC.$$

$$F = A'D + B'C + CD + AB.$$

X1A, X1B, X3A, X2B

7
+ 7
14
+ 2
16

X1

$$X_4 = F = A'B' + AC' + BD' + CD.$$

$$F = A'B' + C'D' + AD + BC.$$

$$F = A'D' + B'D + AC' + BC.$$

$$F = A'C + B'C' + BD' + AD.$$

$$F = A'D' + B'C' + CD + AB.$$

$$F = A'C + B'D + C'D' + AB.$$

X1A, X1B, X4A, X1C
X1C

2

$$X_5 = F = B'D + BD' + A'B' + B'C'.$$

$$F = B'D + BD' + A'B' + C'D'.$$

$$F = B'D + BD' + A'D' + B'C'.$$

$$F = B'D + BD' + A'D' + C'D'.$$

X5A, X5B, X1A, X1B,

3

$$X_6 = F = A'B' + C'D' + AC.$$

2

$$X_7 = F = BC + AD + AC.$$

Dec	A	B	C	D	AB_2*CD_2	X1	X2	X3	X4	X5	X6	X7
0	0	0	0	0	0	0	1	1	1	1	1	0 m0
1	0	0	0	1	0	0	1	1	1	1	1	0 m1
2	0	0	1	0	0	0	1	1	1	1	1	0 m2
3	0	0	1	1	0	0	1	1	1	1	1	0 m3
4	0	1	0	0	0	0	1	1	1	1	1	0 m4
5	0	1	0	1	1	1	0	1	1	0	0	0 m5
6	0	1	1	0	2	1	1	0	1	1	0	1 m6
7	0	1	1	1	3	1	1	1	1	0	0	1 m7
8	1	0	0	0	0	0	1	1	1	1	1	0 m8
9	1	0	0	1	2	1	1	0	1	1	0	1 m9
10	1	0	1	0	4	0	1	1	0	0	1	1 m10
11	1	0	1	1	6	1	0	1	1	1	1	1 m11
12	1	1	0	0	0	0	1	1	1	1	1	0 m12
13	1	1	0	1	3	1	1	1	1	0	0	1 m13
14	1	1	1	0	6	1	0	1	1	1	1	1 m14
15	1	1	1	1	9	1	1	1	1	0	1	1 m15

0
1
2
3
4
5
6
7
8
9

same $\rightarrow X_1$

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

$A'B' + C'D' + AC + BC$

X_4

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

X_7

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

$BC + AD + AC$

X_2

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

$A' + C' + B'D' + BD$

X_5

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

$B'D + BD + A'B' + C'D'$

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

X_3

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

$A'B' + C'D' + AC + BD$

X_6

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

$A'B' + C'D' + AC$

	AB	00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

