

8

(a)

	$b_1 b_0$	00	01	11	10
$b_3 b_2$	00	0	0	0	0
	01	0	1	0	1
	11	1	0	1	1
	10	0	0	1	0

(b)

0	0	0	1
0	0	0	0
1	0	1	1
0	0	0	0

(c)

0	1	0	0
1	0	1	0
0	0	0	0
0	1	0	1

$$a = (b_0 \sim b_1 b_2 \sim b_3) + (\sim b_0 b_1 b_2) + (b_0 b_1 b_3) + (\sim b_0 b_2 b_3)$$

$$b = (\sim b_0 b_1 \sim b_2 \sim b_3) + (b_1 b_2 b_3) + (\sim b_0 b_2 b_3)$$

$$c = (\sim b_0 \sim b_1 b_2 \sim b_3) + (\sim b_0 b_1 \sim b_2 b_3) + (b_0 b_1 b_2) + (b_0 \sim b_1 \sim b_2)$$