

① $f(a, b, c, d) = \prod_M (3, 6, 8, 9, 10) \cdot \prod_P (0, 1, 2, 7)$

②

	c,d	00	01	11	10
a,b	00	0	1	3	2
	01	4	5	7	6
	11	12	13	15	14
	10	8	9	11	10

$$f = (b+c)(a+c')(b+d)$$

(b) $f(a, b, c, d, e) = \sum_m (0, 4, 6, 7, 8, 12, 14, 16, 18, 19, 20, 24, 26, 28) +$

$$\sum_d (2, 3, 10, 15, 22, 23, 27, 30)$$

	c,d,e	000	001	011	010	110	111	101	100
a,b	00	0	1	3	2	6	7	5	4
	01	8	9	11	10	14	15	13	12
	11	24	25	27	26	30	31	29	28
	10	16	17	19	18	22	23	21	20

$$f = e' + b'd$$

Now $A \oplus B \oplus AB = A + B$

$$\Rightarrow e' \oplus (b'd) \oplus (e')(b'd)$$

thus,

