$$f_0 = \underbrace{a_2' a_1' a_0 + a_2' a_1 a_0}_{} + \underbrace{a_2 a_1' a_0 + a_2 a_1 a_0}_{}$$

$$a_2' a_0 (\underbrace{a_1' + a_1}_{}) + a_2 a_0 (\underbrace{a_1' + a_1}_{})$$

$$a_2' a_0 \cdot \cancel{1} + a_2 a_0 \cdot \cancel{1}$$

$$a_2' \cdot a_0 + a_2 a_0$$

$$a_0 (a_2' \cancel{+ a_0})$$

$$1$$

$$a_0$$

$$b_1 = a_2'a_1'a_0' + a_2'a_1'a_0 + a_2a_1'a_0' + a_2a_1'a_0$$

$a_2'a_1'\cancel{(a_0'+a_1')}$ $\quad a_2'a_1' \qquad\qquad\qquad a_2a_1'$

$$a_1'$$

$$b_2 = a_2'a_1\underline{a_0'} + a_2'a_1\underline{a_0} + a_2a_1'\underline{a_0'} + a_2a_1'\underline{a_0}$$

$$\underline{a_2'a_1} + \underline{a_2a_1'}$$

a_2	a_1	a_0	b_0
0	0	0	0
0	0	1	1
0	1	0	0
0	1	1	1
1	0	0	0
1	0	1	1
1	1	0	0
1	1	1	1

		1 1	0 1	0 0	1 0
		$a_2 a_1$	$a_2' a_1$	$a_2' a_1'$	$a_2 a_1'$
1	a_0	1	1	1	1
0	a_0'	0	0	0	0

x	y	z	b
0	0	0	1
0	0	1	1
0	1	0	1
0	1	1	1
1	0	0	0
1	0	1	0
1	1	0	0
1	1	1	0

	11 xy	10 xy'	00 $x'y'$	01 $x'y$
1 z	0	0	1	1
0 z'	0	0	1	1

$$b = x'$$

x	y	z	w	f
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	1
0	1	0	1	1
0	1	1	0	0
0	1	1	1	0
1	0	0	0	1
1	0	0	1	0
1	0	1	0	1
1	0	1	1	0
1	1	0	0	0
1	1	0	1	1
1	1	1	0	1
1	1	1	1	0

	11 xy	10 xy'	00 $x'y'$	01 $x'y$
11 zw	0	0	1	0
10 zw'	1	1	0	0
00 $z'w'$	0	1	0	1
01 $z'w$	1	0	1	1

$$f = xzw' + xy'w' + x'y'w + x'z'w + x'yz' + yz'w$$