

A	B	C	D	F	
0	0	0	0	1	$a'b'c'd'$
0	0	0	1	0	$a'b'c'd$
0	0	1	0	1	$a'b'cd'$
0	0	1	1	0	$a'b'cd$
0	1	0	0	1	$a'bc'd'$
0	1	0	1	0	$a'bc'd$
0	1	1	0	1	$a'bcd'$
0	1	1	1	0	$a'bcd$
1	0	0	0	1	$ab'c'd'$
1	0	0	1	0	$ab'c'd$
1	0	1	0	1	$ab'cd'$
1	0	1	1	0	$ab'cd$
1	1	0	0	1	$abc'd'$
1	1	0	1	0	$abc'd$
1	1	1	0	1	$abcd'$
1	1	1	1	0	$abcd$

$$\Sigma = (0, 3, 5, 6, 9, 10, 12, 15)$$

$$\Pi = (1, 2, 4, 7, 8, 11, 13, 14)$$

$$\begin{aligned}
 F &= a'b'c'd' + a'b'cd + a'bc'd' + a'bcd' + ab'c'd' + abcd' + abcd \\
 &= a'b'(c'd' + cd) + a'b(c'd + cd') + ab'(c'd + cd') + ab(c'd' + cd) \\
 &= (c'd' + cd)(a'b' + ab) + (c'd + cd')(a'b + ab') \\
 &= 1 + (c'd + cd')(a'b' + ab') = 1
 \end{aligned}$$