

$$F(A, B, C, D) = \sum(1, 2, 3, 4, 5, 7, 9, 11, 12, 13, 14, 15) \text{ using K-Map}$$

		C'D'	C'D	CD	CD'
	00	00	01	11	10
A'B'	00		1	1	1
A'B	01	1	1	1	
AB	11	1	1	1	1
AB'	10		1	1	

$$F = D \text{ ( Purple Octet )} + BC' \text{ ( Blue Quad )} + AB \text{ ( Green Quad )} + A'B'C \text{ ( Yellow Pair )}$$

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