

17. Encuentre la expresión mínima como suma de productos de las siguientes funciones

A) $f(a,b,c) = \sum m(0,1,2,3,5)$

	a	b	c	f
→ 0	0	0	0	1
→ 1	0	0	1	1
→ 2	0	1	0	1
→ 3	0	1	1	1
4	1	0	0	0
→ 5	1	0	1	1
6	1	1	0	0
7	1	1	1	0

c \ ab	00	01	11	10
0	1	1	0	0
1	1	1	0	1

$$f = \bar{a} + \bar{b}c$$

B) $f(a,b,c) = \sum m(2,3,4,6)$

	a	b	c	f
0	0	0	0	0
1	0	0	1	0
→ 2	0	1	0	1
→ 3	0	1	1	1
→ 4	1	0	0	1
5	1	0	1	0
→ 6	1	1	0	1
7	1	1	1	0

c \ ab	00	01	11	10
0	0	1	1	1
1	0	1	0	0

$$f = \bar{a}b + a\bar{c}$$

$$c) f(a, b, c, d) = \sum m(0, 6, 8, 11, 14, 15)$$

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

ab \ cd	00	01	11	10
00	1	0	0	1
01	0	0	0	0
11	0	0	1	1
10	0	1	1	0

$$F = \bar{b}\bar{c}\bar{d} + b\bar{c}\bar{d} + acd$$

$$D) f(a, b, c, d) = \sum m(1, 3, 5, 6, 7, 8, 9, 10, 11, 13, 15)$$

ab \ cd	00	01	11	10
00	0	0	0	1
01	1	1	1	1
11	1	1	1	1
10	0	1	0	1

$$F = d + a\bar{b} + \bar{a}bc$$