Disciplina: Arquitetura de Computadores I

Mapa de Veitch

m	mintermo	a	b	c	s
0	(~a&~b&~c)	0	0	0	0
1	(~a&~b& c)	0	0	1	0
2	(~a& b&~c)	0	1	0	0
3	(~a& b& c)	0	1	1	1
4	(a&~b&~c)	1	0	0	1
5	(a&~b& c)	1	0	1	0
6	(a& b&~c)	1	1	0	1
7	(a& b& c)	1	1	1	1

SoP (3,4,6,7)

a \ bc	~b		b	
~a	~a & ~b & ~c	~a & ~b & c	~a & b & c	~a & b & ~c
a	a & ~b & ~c	a & ~b & c	a & b & c	a & b & ~c
	~c	c		~c

Mapa de Karnaugh

m	mintermo	a	b	c	s
0	~a & ~b & ~c	0	0	0	0
1	~a & ~b & c	0	0	1	0
2	~a & b & ~c	0	1	0	0
3	~a & b & c	0	1	1	1
4	a & ~b & ~c	1	0	0	1
5	a & ~b & c	1	0	1	0
6	a & b & ~c	1	1	0	1
7	a & b & c	1	1	1	1

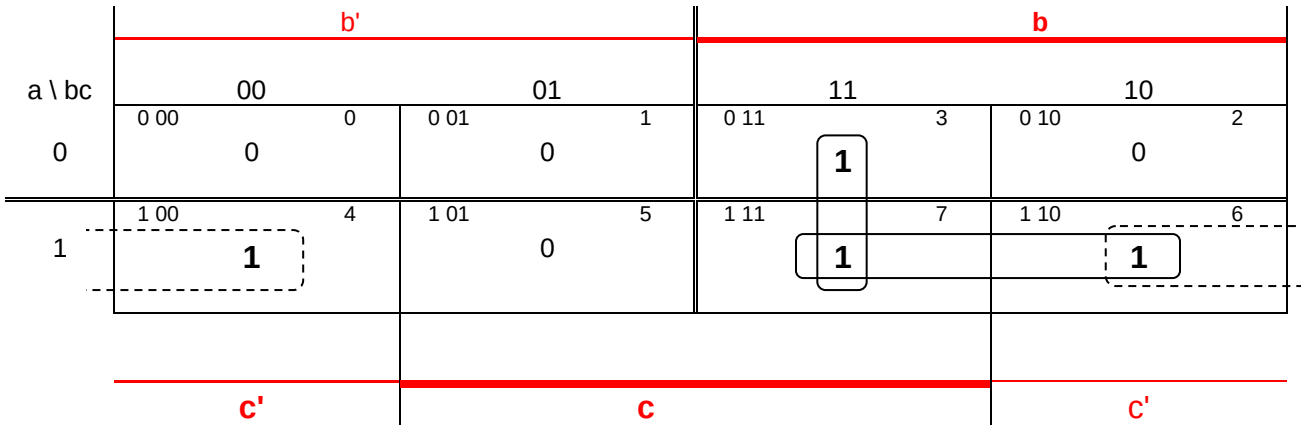
SoP (3,4,6,7)

a \ bc	00	01	11	10
0	0	0	**1**	0
1	**1**	0	**1**	**1**

Mapa de Veitch-Karnaugh
para 3 variáveis

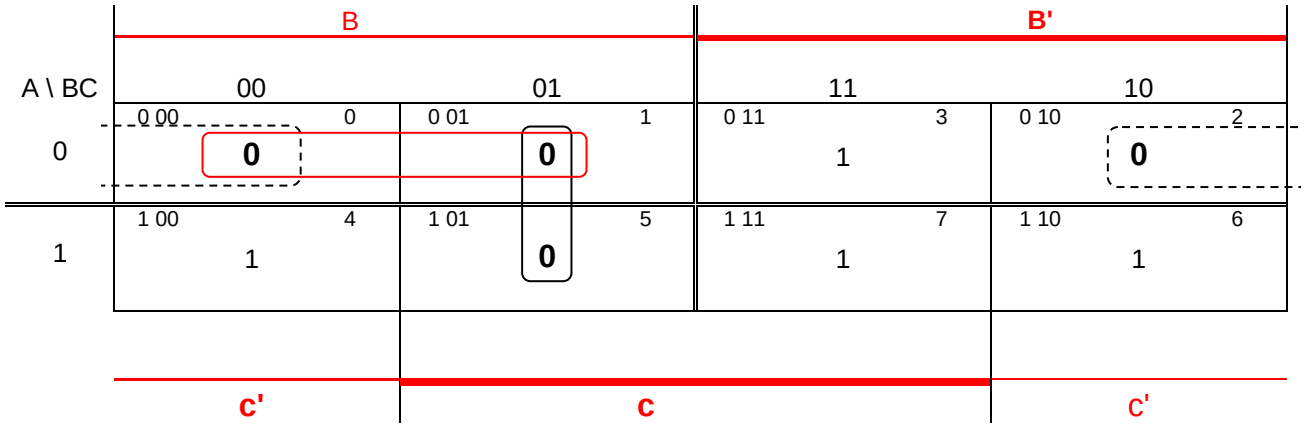
m	mintermo	a	b	c	s
0	a'.b'.c'	0	0	0	0
1	a'.b'.c	0	0	1	0
2	a'.b.c'	0	1	0	0
3	a'.b .c	0	1	1	1
4	a .b'.c'	1	0	0	1
5	a .b'.c	1	0	1	0
6	a .b .c'	1	1	0	1
7	a .b .c	1	1	1	1

SoP (3,4,6,7) = bc+ab+ac'



PoS (0,1,2,5) = (B+C').(A+C) = BA+BC+C'A+C'C = BA+BC+C'A+0 = BA+BC+C'A

PoS (0,1,2,5) = (B+C').(A+B).(A+C) = (BA+BB+C'A+C'B).(A+C) =(B+C'A).(A+C) = BA+BC+C'A
(A+B) é redundante (e será desprezado)



Mapa de Veitch-Karnaugh
para 4 variáveis

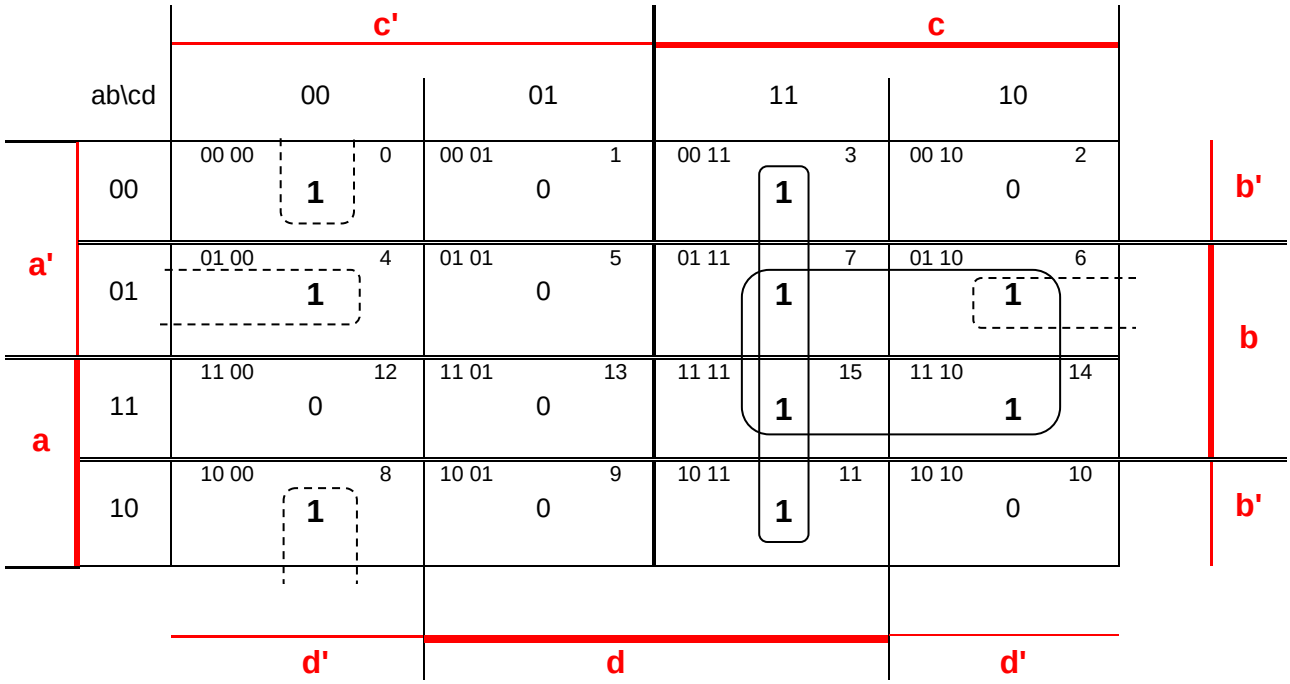
m	mintermo	a	b	c	d	s
0	a'.b'.c'.d'	0	0	0	0	1
1	a'.b'.c'.d	0	0	0	1	0
2	a'.b'.c .d'	0	0	1	0	0
3	a'.b' .c .d	0	0	1	1	1
4	a'.b .c'.d'	0	1	0	0	1
5	a'.b .c'.d	0	1	0	1	0
6	a'.b .c.d'	0	1	1	0	1
7	a'.b .c.d	0	1	1	1	1
8	a .b'.c'.d'	1	0	0	0	1
9	a .b'.c'.d	1	0	0	1	0
10	a .b'.c .d'	1	0	1	0	0
11	a .b' .c .d	1	0	1	1	1
12	a .b .c'.d'	1	1	0	0	0
13	a .b .c'.d	1	1	0	1	0
14	a .b .c.d'	1	1	1	0	1
15	a .b .c.d	1	1	1	1	1

SoP (0,3,4,6,7,8,11,14,15)

PoS (0,1,2,5,9,10,12,13)

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

SoP (0,3,4,6,7,8,11,14,15)
SoP = bc+cd+a'bd'+b'c'd'



PoS (0,1,2,5,9,10,12,13) = (C+D').(B+C'+D).(A'+B'+C)