

Mapas de Karnaugh

5 e 6 variáveis

Revisão rápida de mapas de 4 variáveis

		AB			
		00	01	11	10
CD	00	0	4	12	8
	01	1	5	13	9
	11	3	7	15	11
	10	2	6	14	10

Mapas de 5 variáveis

<i>ABC</i>									
<i>DE</i>		000	001	011	010	110	111	101	100
00	0	4	12	8	24	28	20	16	
01	1	5	13	9	25	29	21	17	
11	3	7	15	11	27	31	23	19	
10	2	6	14	10	26	30	22	18	

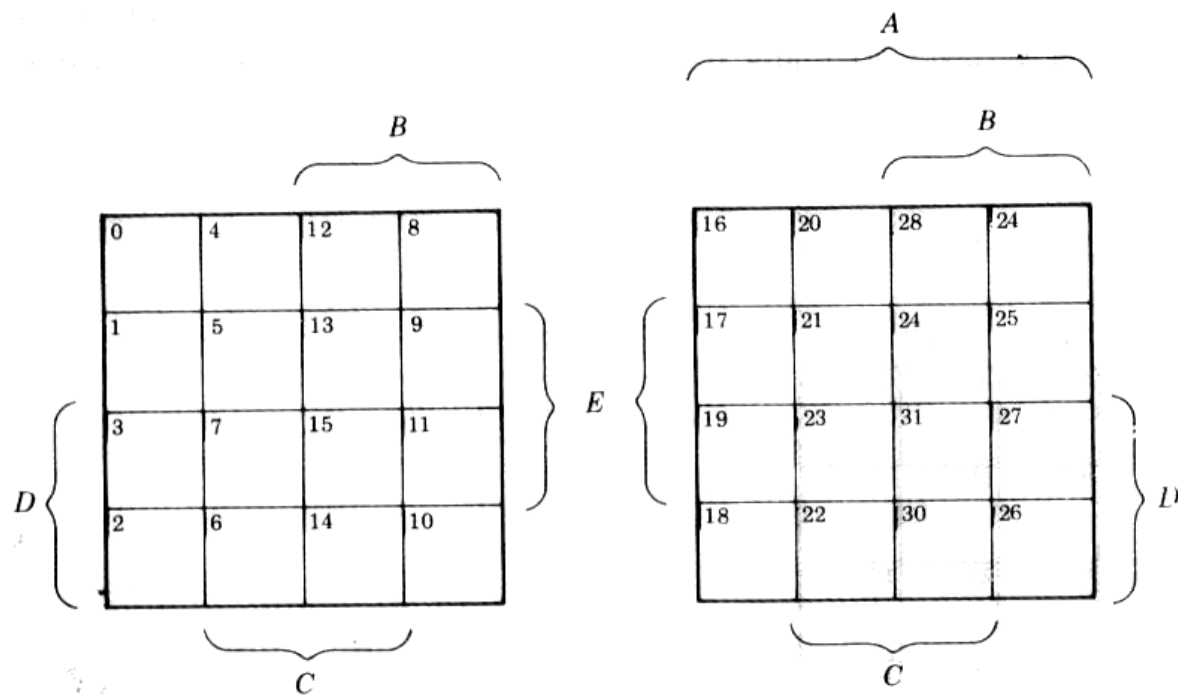
$A = 0$

$\begin{array}{c} BC \\ DE \end{array}$		00	01	11	10
		0	4	12	8
00					
01					
11					
10					

$A = 1$

	00	01	11	10
16	20	28	24	
17	21	29	25	
19	23	31	27	
18	22	30	26	

(a)

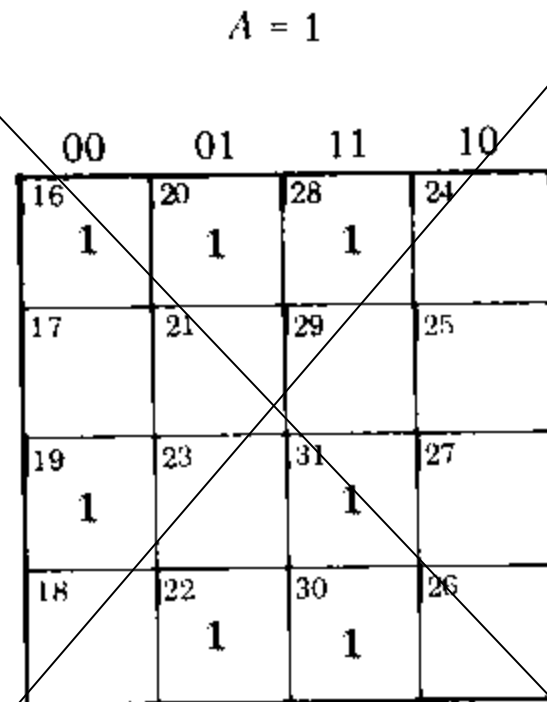
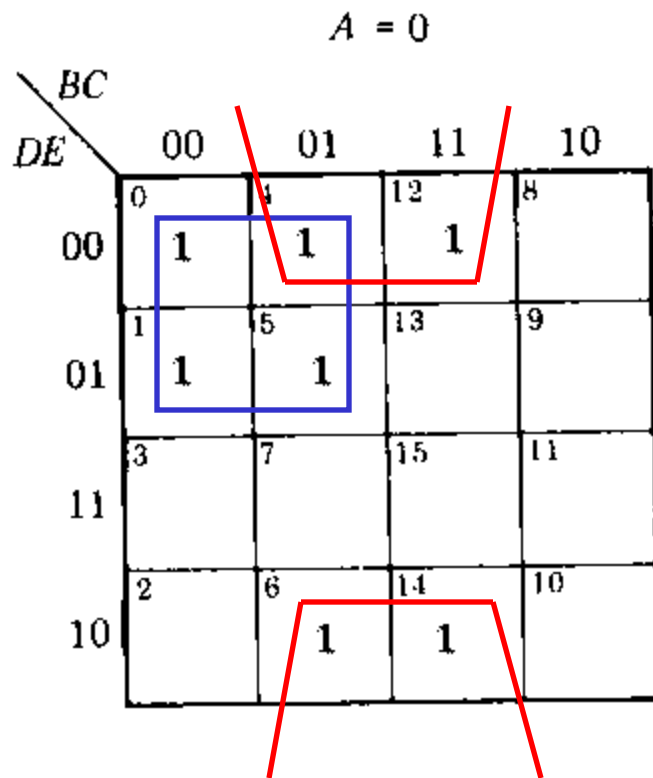


$A = 0$

$DE \backslash BC$					
		00	01	11	10
00	0	1	1	1	
01	1	1	1		
11	3				
10	2		1	1	

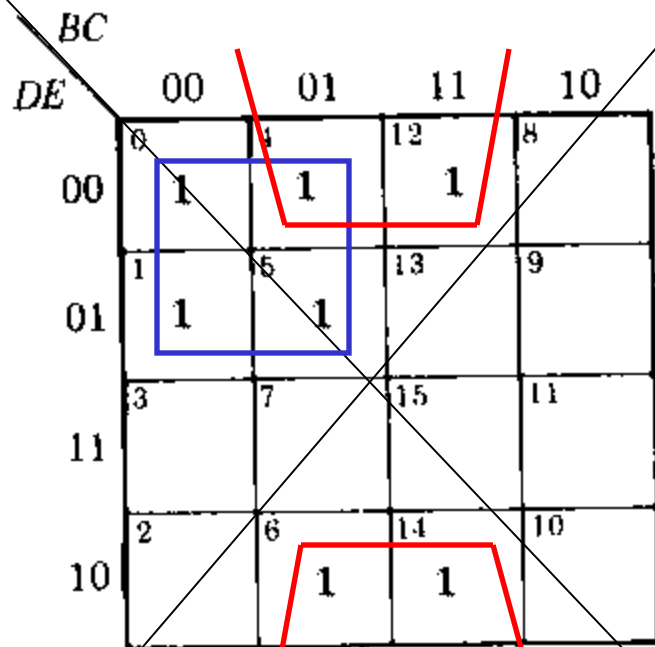
$A = 1$

		00	01	11	10
		16	20	28	24
		1	1	1	
		17	21	29	25
		19	23	31	27
		1		1	
		18	22	30	26
			1	1	

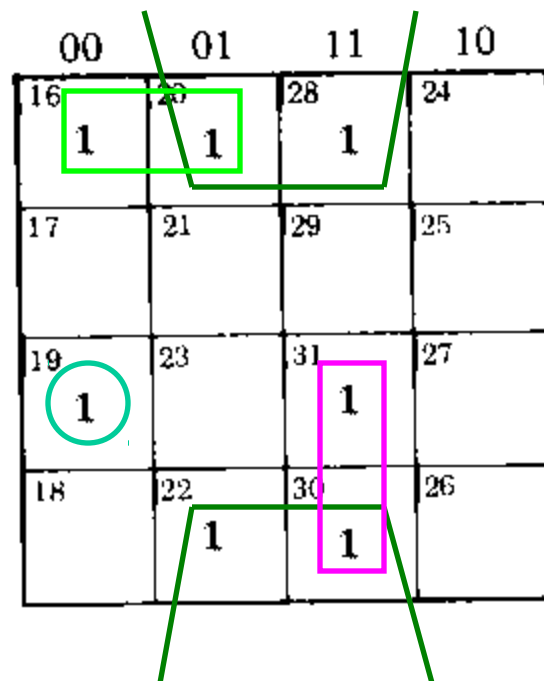


Começando pelo Mapa em que $A=0$ temos 2 grupos apenas

$A = 0$

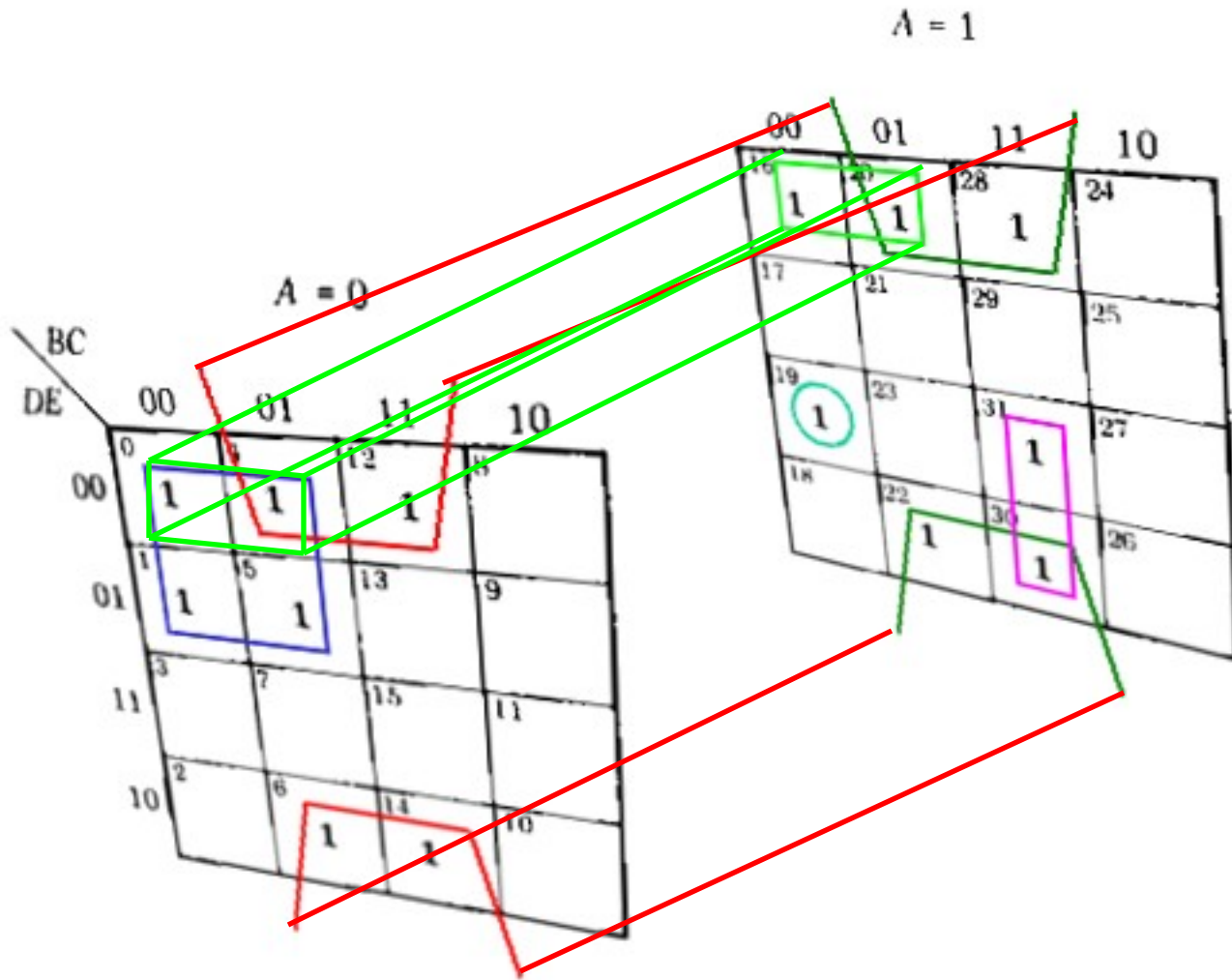


$A = 1$



No Mapa em que $A=1$ temos 4 grupos

Agora vemos o que existe em ambos os mapas



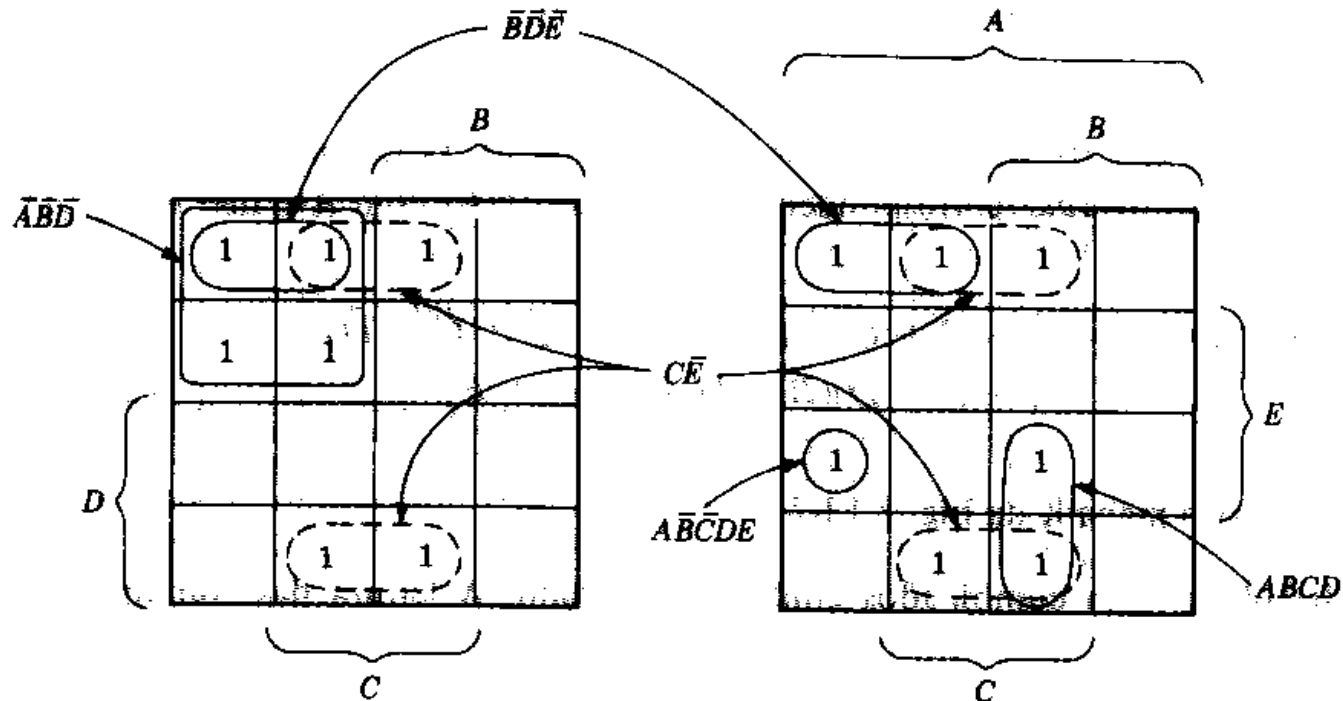
Exemplo de um mapa de 5 variáveis:

$A = 0$

$BC \backslash DE$					
		00	01	11	10
00	0	1	1	1	
01	1	1	1		
11	3				
10	2		1	1	

$A = 1$

		00	01	11	10
16	1	1	1		
17					
19	1			1	
18			1	1	



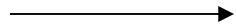
Exercícios:

a) $f(A,B,C,D,E) = \Sigma(0,4,8,12,16,20,24)$

b) $F($

Mapas de 6 variáveis

Mapas em que
 $A = 0$



$A = 0$

$B = 0$

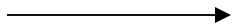
$CD \backslash EF$					
		00	01	11	10
00	0	4	12	8	
01	1	5	13	9	
11	3	7	15	11	
10	2	6	14	10	

$B = 1$

$CD \backslash EF$					
		00	01	11	10
00	16	20	28	24	
01	17	21	29	25	
11	19	23	31	27	
10	18	22	30	26	

$\left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} E$
 $\left. \begin{array}{l} \left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} E \end{array} \right\} F$

Mapas em que
 $A = 1$



$A = 1$

$EF \backslash CD$					
		00	01	11	10
00	32	36	44	40	
01	33	37	45	41	
11	35	39	47	43	
10	34	38	46	42	

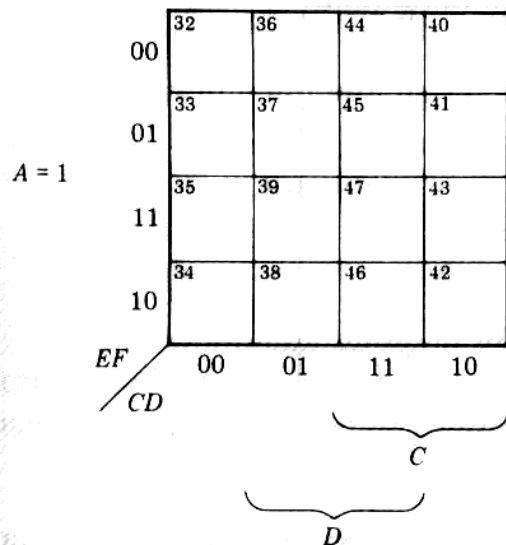
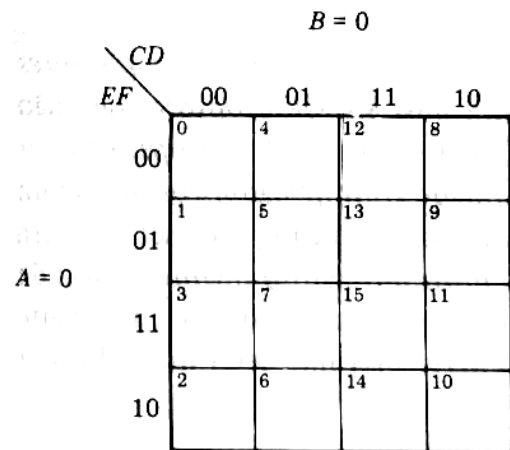
$\left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} D$
 $\left. \begin{array}{l} \left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} D \end{array} \right\} C$

$EF \backslash CD$					
		00	01	11	10
00	48	52	60	56	
01	49	53	61	57	
11	51	55	63	59	
10	50	54	62	58	

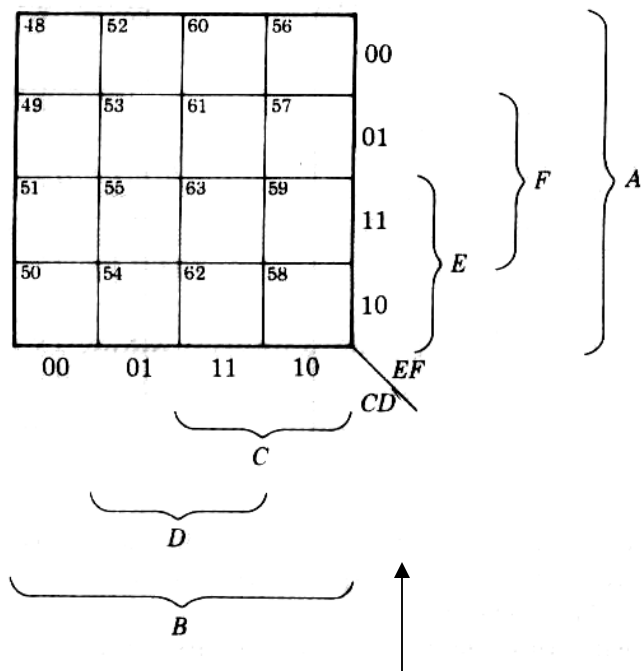
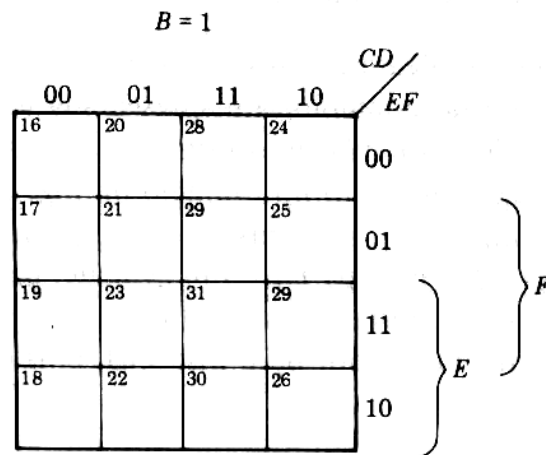
$\left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} D$
 $\left. \begin{array}{l} \left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} D \end{array} \right\} C$
 $\left. \begin{array}{l} \left. \begin{array}{l} \left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} D \end{array} \right\} C \end{array} \right\} B$

$\left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} E$
 $\left. \begin{array}{l} \left. \begin{array}{l} \left. \begin{array}{l} 00 \\ 01 \\ 11 \\ 10 \end{array} \right\} E \end{array} \right\} F \end{array} \right\} A$

Mapas de 6 variáveis



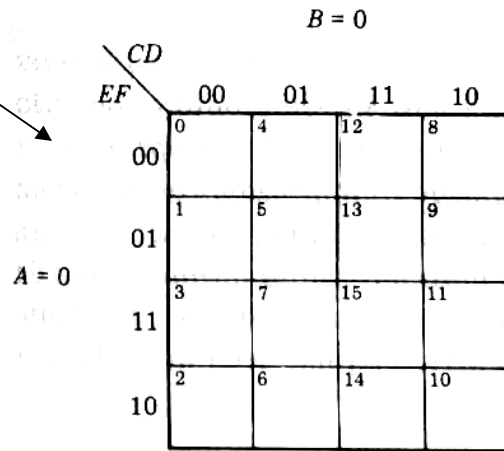
Mapas em que $B=0$



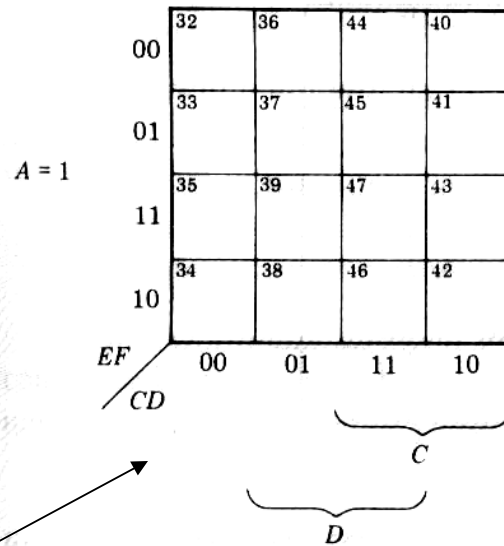
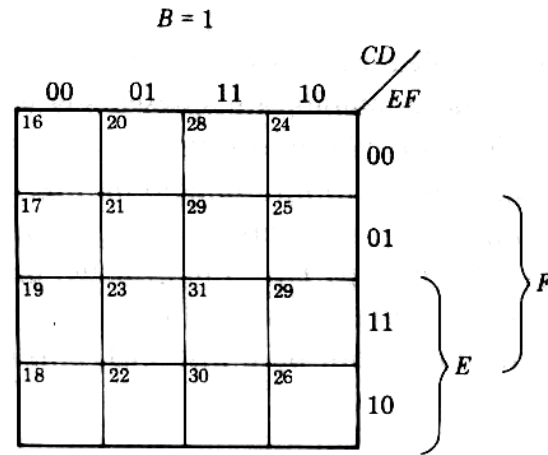
Mapas em que $B=1$

Mapas de 6 variáveis

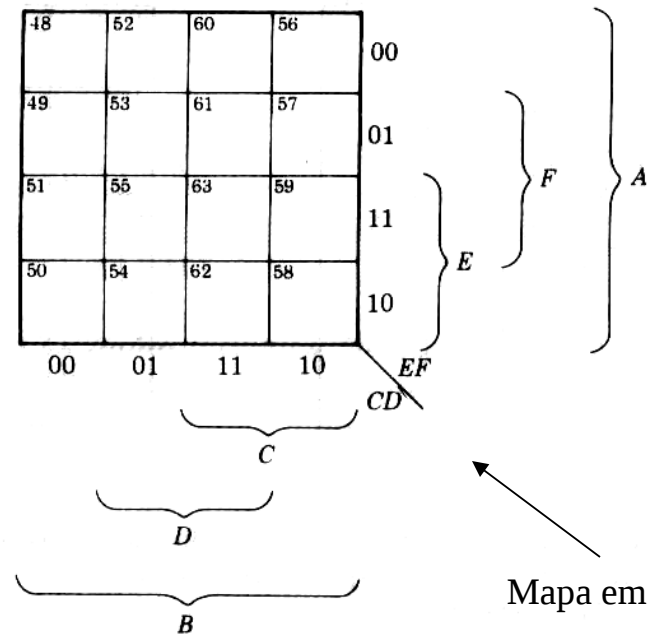
Mapa em que $B=0$ e $A=0$



Mapa em que $B=1$ e $A=0$



Mapa em que $B=0$ e $A=1$



Mapa em que $B=1$ e $A=1$