

Ejercicio de Mapas de Karnaugh.

Simplificar por medio de los mapas K

① $F = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}C + A\bar{B}\bar{C} + A\bar{B}C$

sol 000 100 110 111

$2^3 = 8$ celdas.

A \ BC	00	01	11	10
0	1	0	0	0
1	1	0	1	1

encerramos los 1's

• $\bar{A}\bar{B}C$

• $A\bar{B}C$

$f_{min} = \bar{B}\bar{C} + A\bar{B}$

② $f = \bar{A}B\bar{C} + \bar{A}BC + \bar{A}\bar{B}C + A\bar{B}C + A\bar{B}\bar{C}$

sol 010 011 001 111 101

$2^3 = 8$ celdas.

A \ BC	00	01	11	10
0	0	1	1	1
1	0	1	1	0

• $\bar{A}B\bar{C}$

• $\bar{A}BC$

$f_{min} = C + \bar{A}B$

(3) $f = \bar{A}BC + ABC + AB\bar{C}$
 sol 011 111 010.

A \ BC	00	01	11	10
0	0	0	1	0
1	0	0	1	1

• $\times BC$

• $AB \times$

$f_{min} = BC + AB$

(4) $f = \bar{A}\bar{B}C + A\bar{B}C + A\bar{B}\bar{C} + \bar{A}B\bar{C}$
 sol 001 111 101 011

A \ BC	00	01	11	10
0	0	1	1	0
1	0	1	1	0

• $\times \times C$

$f_{min} = C$

$$\textcircled{1} \bar{A}\bar{B}\bar{C} + \bar{A}B\bar{C} + \bar{A}BC + A\bar{B}\bar{C} + AB\bar{C} + ABC$$

000 010 011 100 110 111

A \ BC	00	01	11	10
0	1	0	1	1
1	1	0	1	1

* $\bar{B}\bar{C}$

* B *

$$F = \bar{B}\bar{C} + B$$

$$\textcircled{2} \bar{A}\bar{B}CD + A\bar{B}CD + \bar{A}B\bar{C}D + A\bar{B}\bar{C}D +$$

0001 1000 0011 1001

AB \ CD	00	01	11	10
00	0	1	1	0
01	0	0	0	0
11	0	0	0	0
10	1	1	0	0

* $\bar{A}\bar{B}\bar{C}$ *

* $\bar{A}\bar{B}$ * D

$$F = \bar{A}\bar{B}\bar{C} + \bar{A}\bar{B}D$$