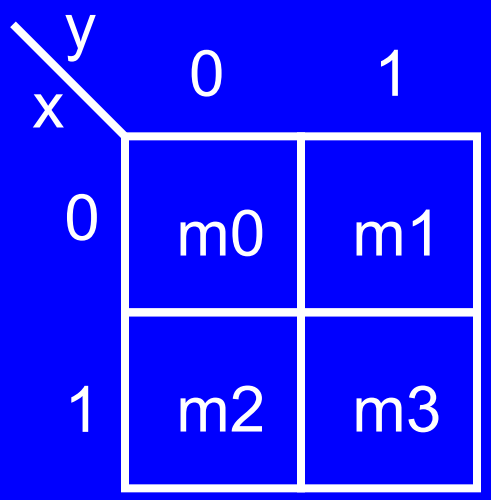
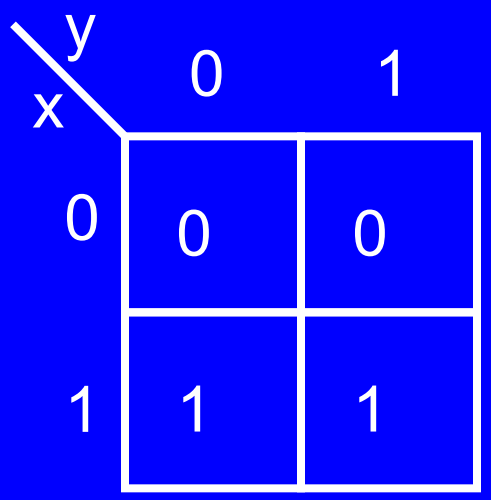
Ελαχιστόροι και μεγιστόροι

x	y	z	όρος	όνομα	όρος	όνομα
0	0	0	x'y'z'	m_0	x+y+z	M_0
0	0	1	x'y'z	m_1	x+y+z'	M_1
0	1	0	x'yz'	m_2	x+y'+z	M_2
0	1	1	x'yz	m_3	x+y'+z'	M_3
1	0	0	xy'z'	m_4	x'+y+z	M_4
1	0	1	xy'z	m_5	x'+y+z'	M_5
1	1	0	xyz'	m_6	x'+y'+z	M_6
1	1	1	xyz	m_7	x'+y'+z'	M_7

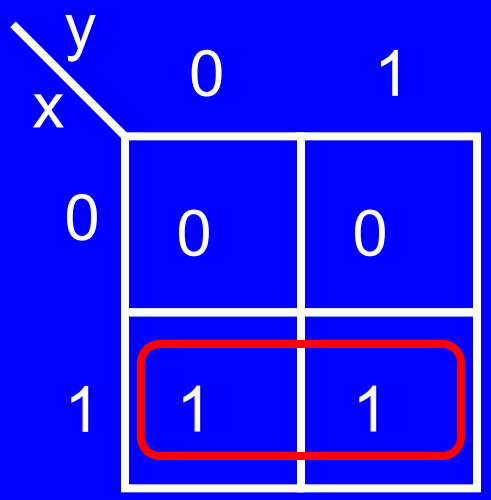
Χάρτης Karnaugh δύο μεταβλητών



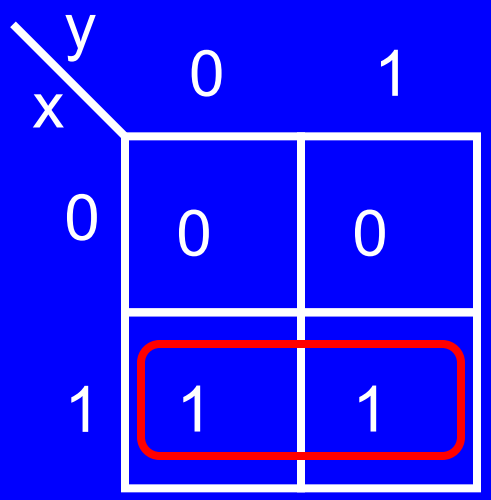
Χάρτης Karnaugh δύο μεταβλητών



Χάρτης Karnaugh δύο μεταβλητών

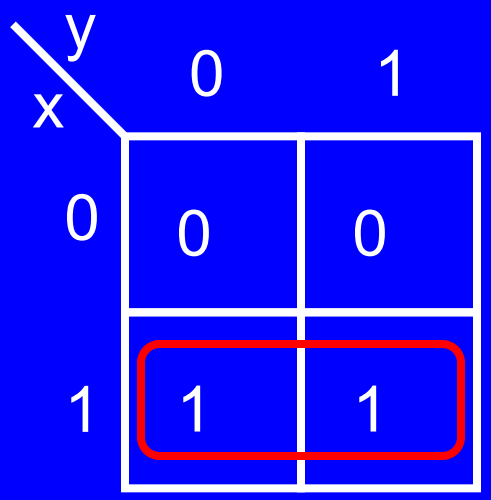


Χάρτης Karnaugh δύο μεταβλητών



F = x

Χάρτης Karnaugh δύο μεταβλητών



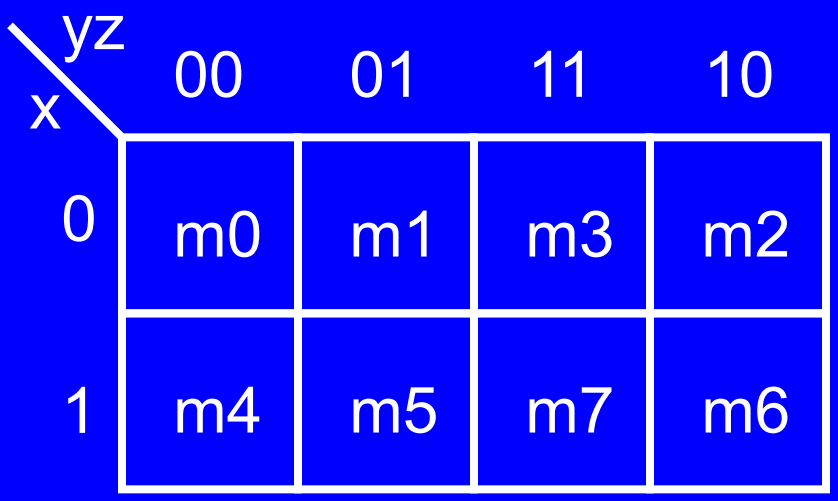
F = x

xy'+xy=

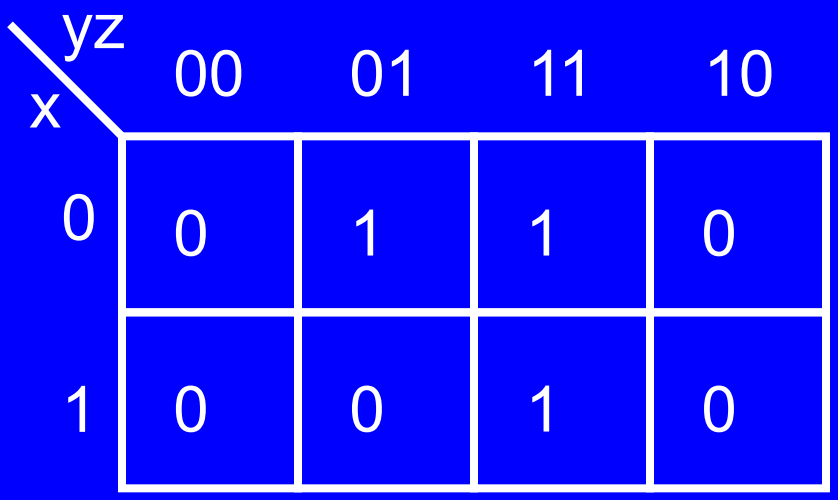
x(y+y')=

x

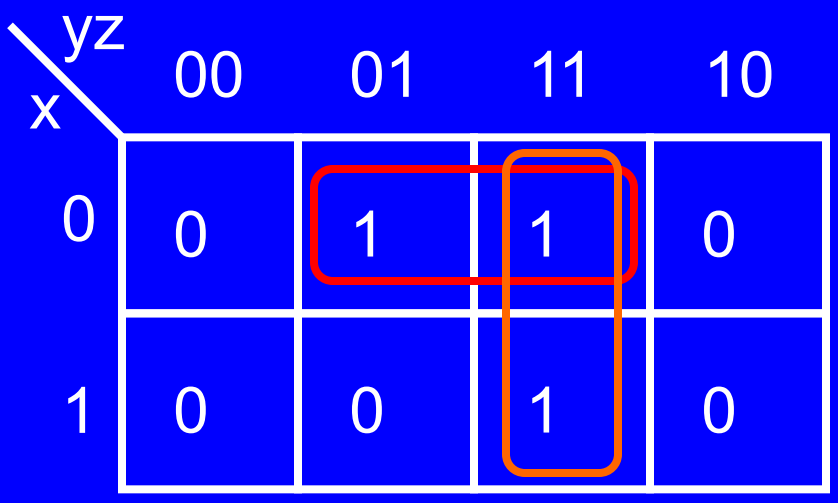
Χάρτης Karnaugh τριών μεταβλητών



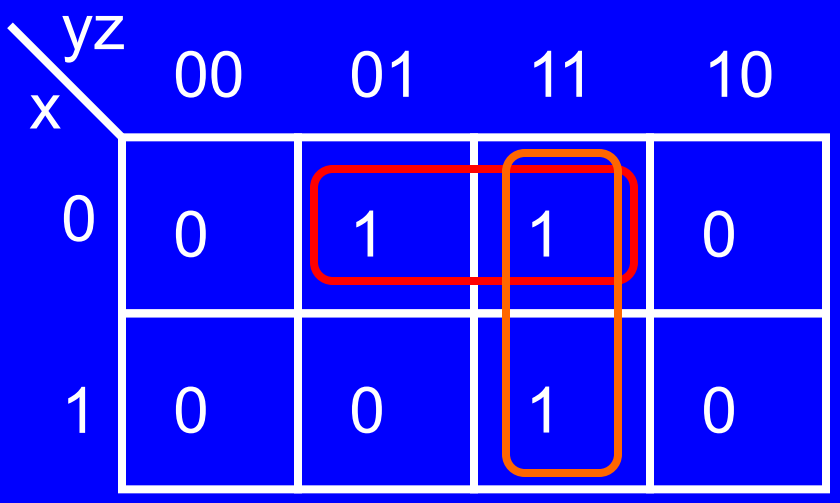
Χάρτης Karnaugh τριών μεταβλητών



Χάρτης Karnaugh τριών μεταβλητών

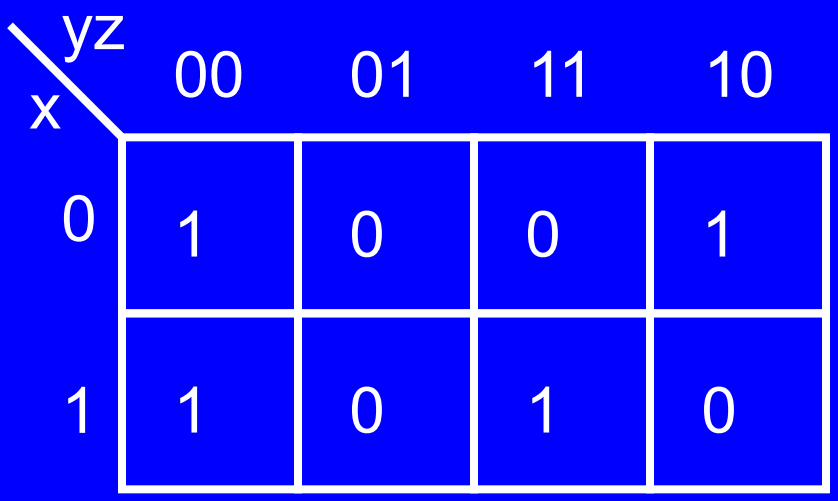


Χάρτης Karnaugh τριών μεταβλητών

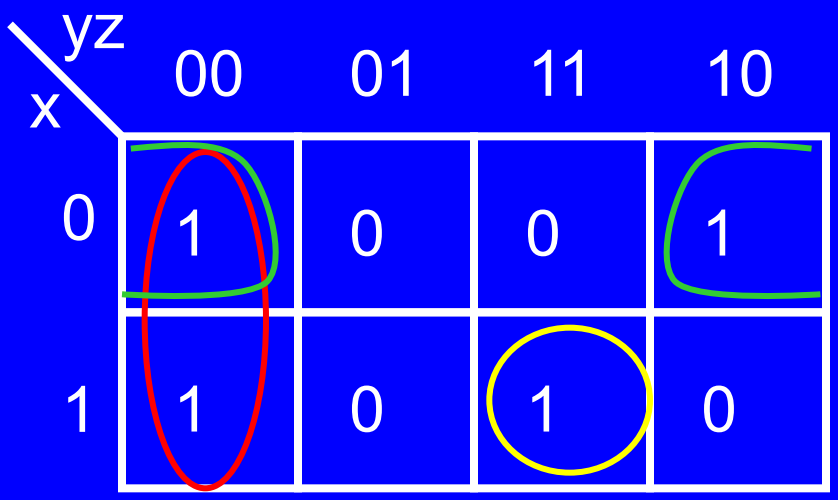


F=x'z+yz

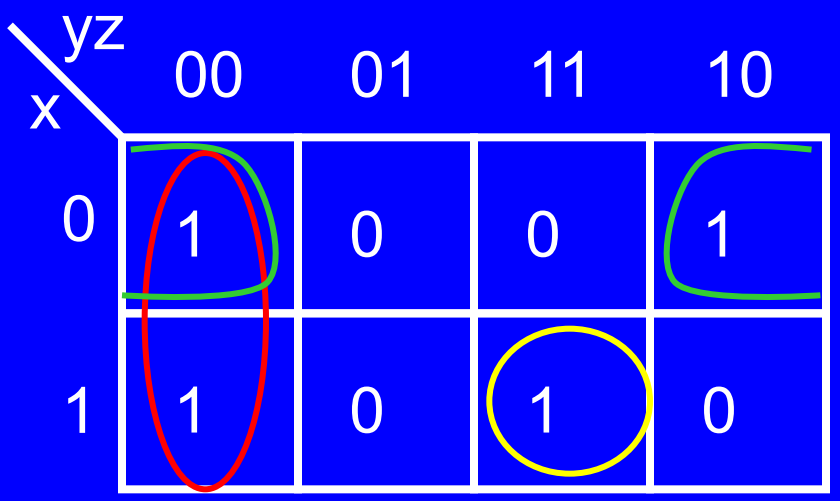
Χάρτης Karnaugh τριών μεταβλητών



Χάρτης Karnaugh τριών μεταβλητών

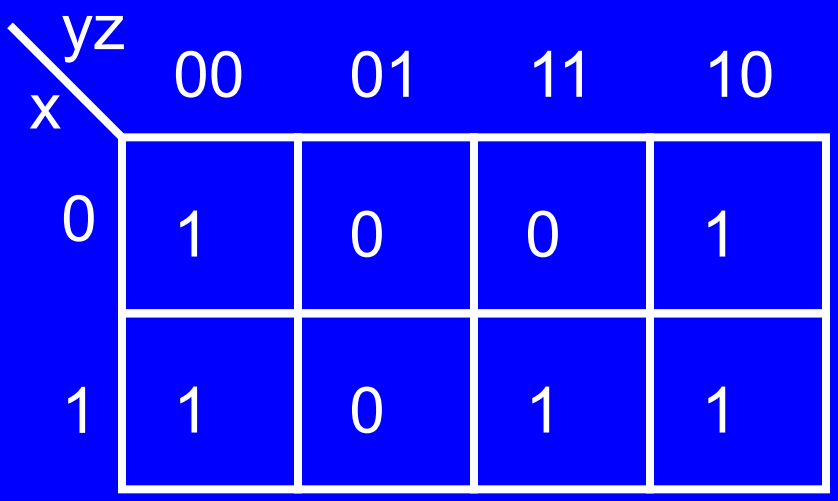


Χάρτης Karnaugh τριών μεταβλητών

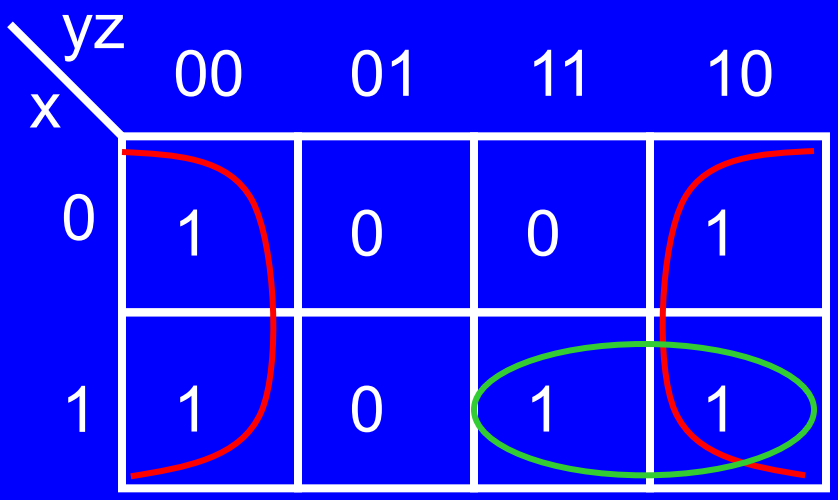


F=y'z'+x'z'+xyz

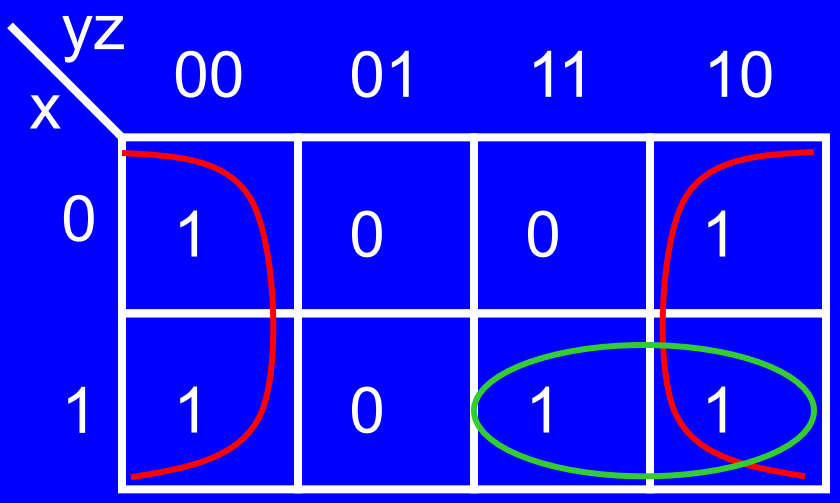
Χάρτης Karnaugh τριών μεταβλητών



Χάρτης Karnaugh τριών μεταβλητών



Χάρτης Karnaugh τριών μεταβλητών

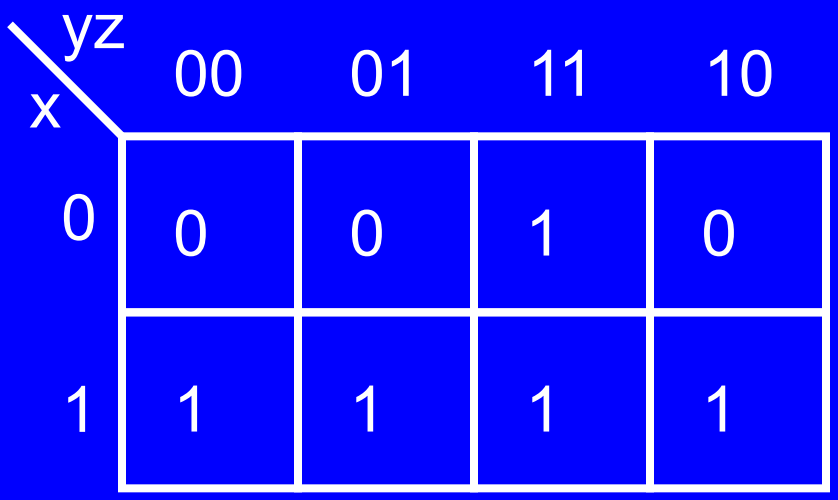


F=z'+xy

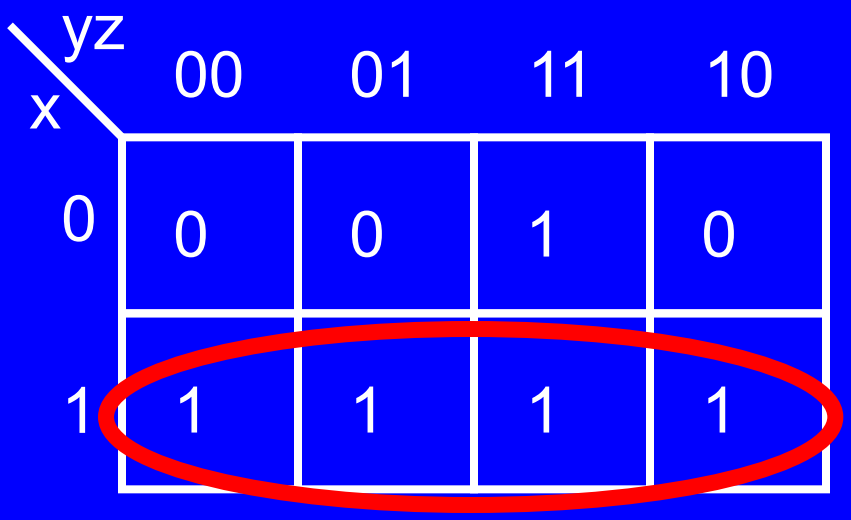
Πίνακες αλήθειας

x	y	z	F_1	F_2	F_3	F_4
0	0	0	0	0	0	1
0	0	1	0	0	1	0
0	1	0	0	0	1	1
0	1	1	1	1	0	0
1	0	0	1	0	1	1
1	0	1	1	1	0	0
1	1	0	1	1	0	1
1	1	1	1	1	1	1

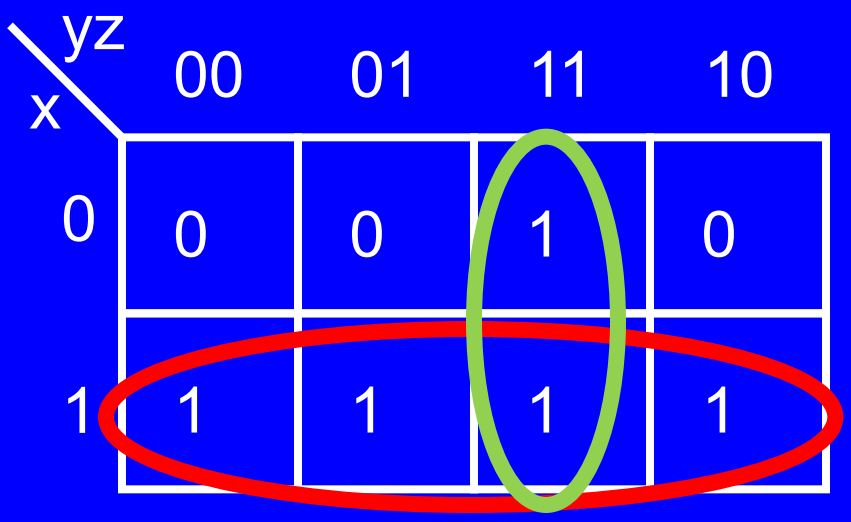
Χάρτης Karnaugh τριών μεταβλητών



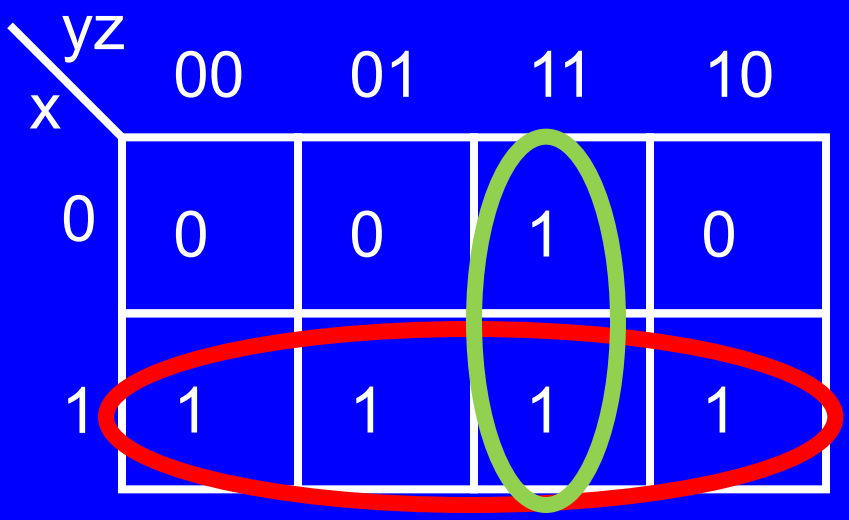
Χάρτης Karnaugh τριών μεταβλητών



Χάρτης Karnaugh τριών μεταβλητών

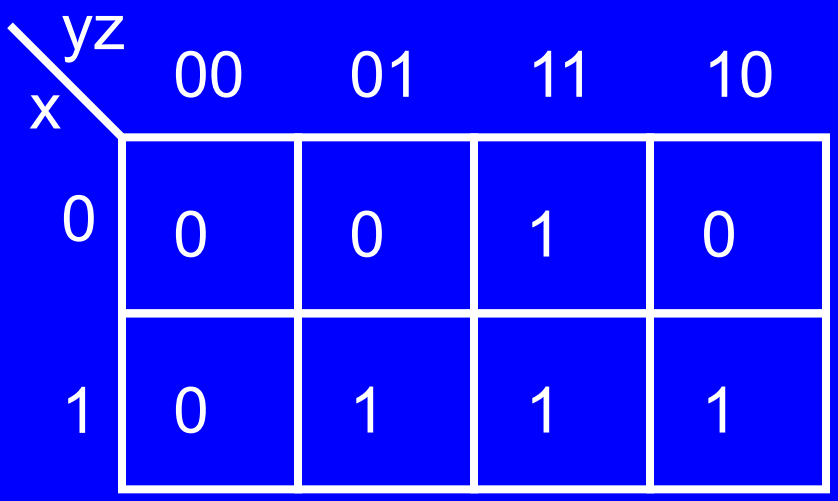


Χάρτης Karnaugh τριών μεταβλητών

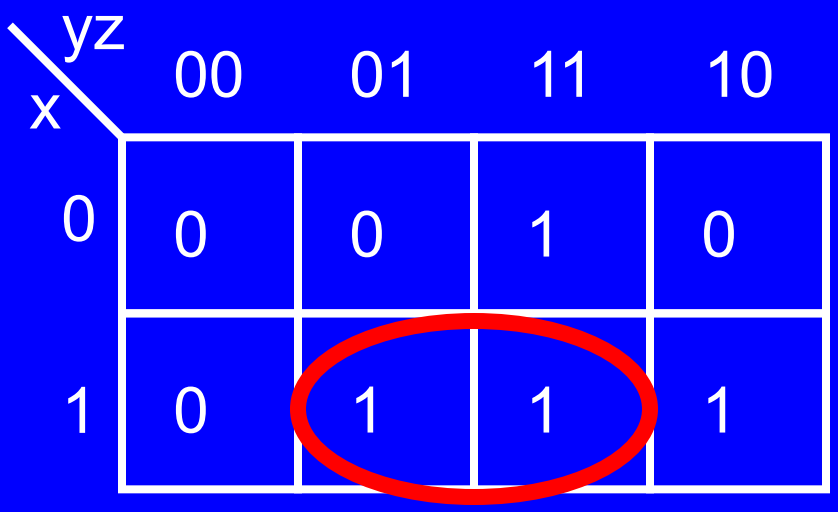


F=x+yz

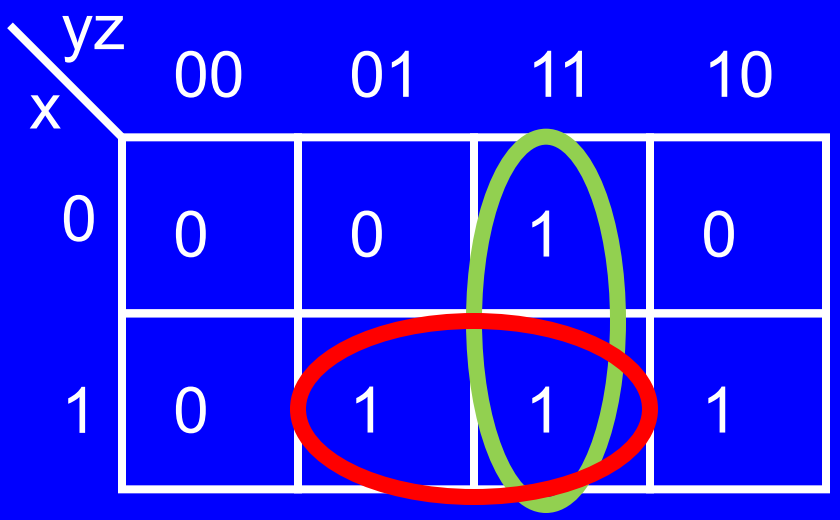
Χάρτης Karnaugh τριών μεταβλητών



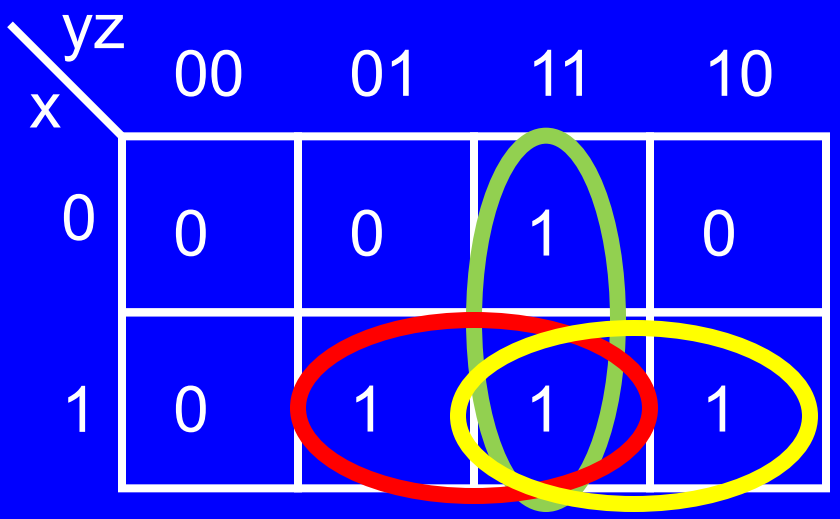
Χάρτης Karnaugh τριών μεταβλητών



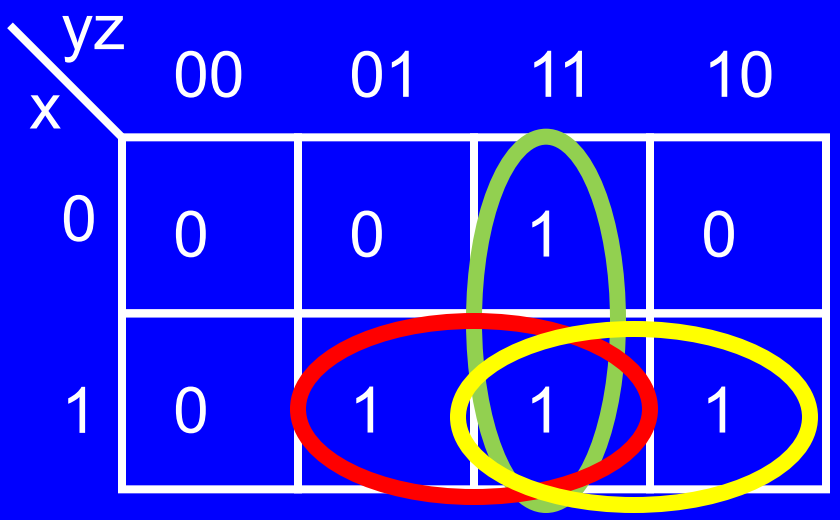
Χάρτης Karnaugh τριών μεταβλητών



Χάρτης Karnaugh τριών μεταβλητών

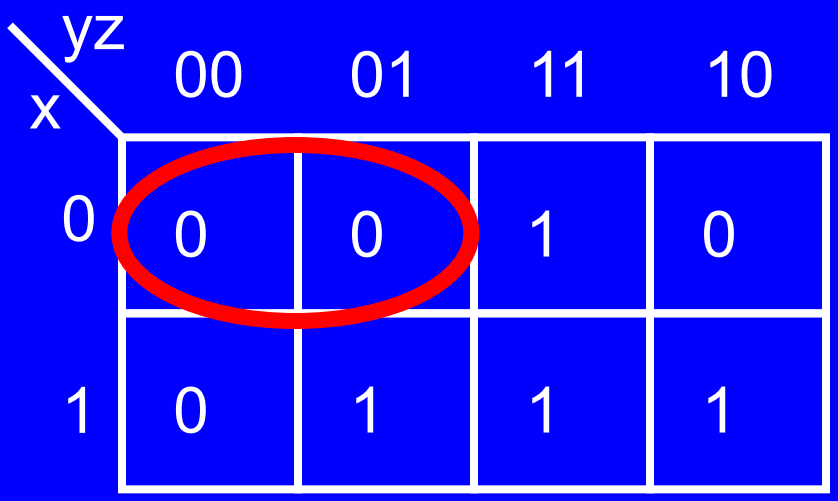


Χάρτης Karnaugh τριών μεταβλητών

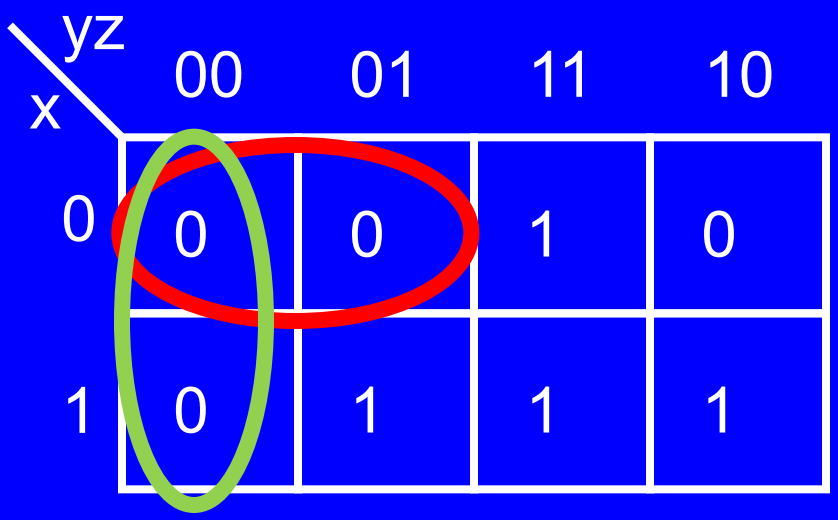


F=xz+yz+xy

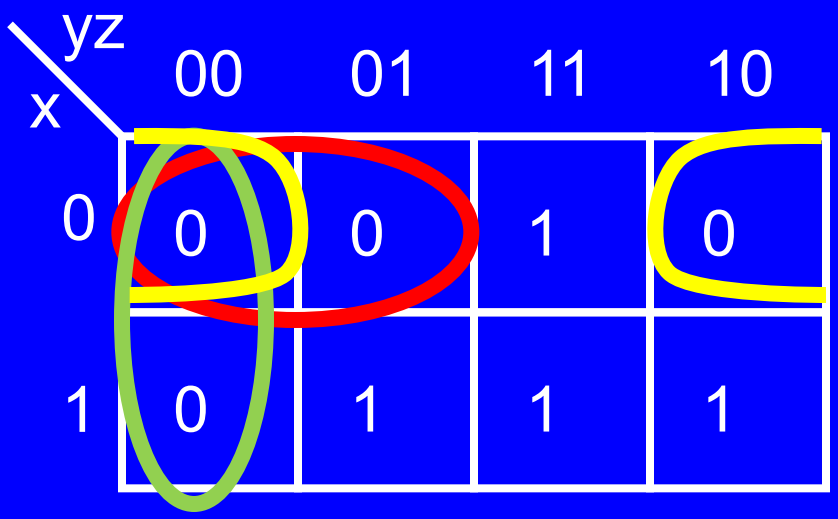
Εύρεση συμπληρώματος



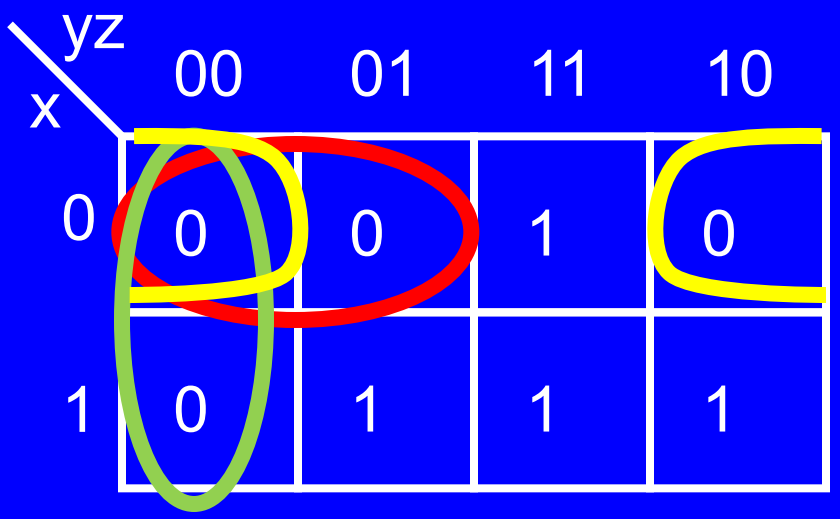
Εύρεση συμπληρώματος



Εύρεση συμπληρώματος

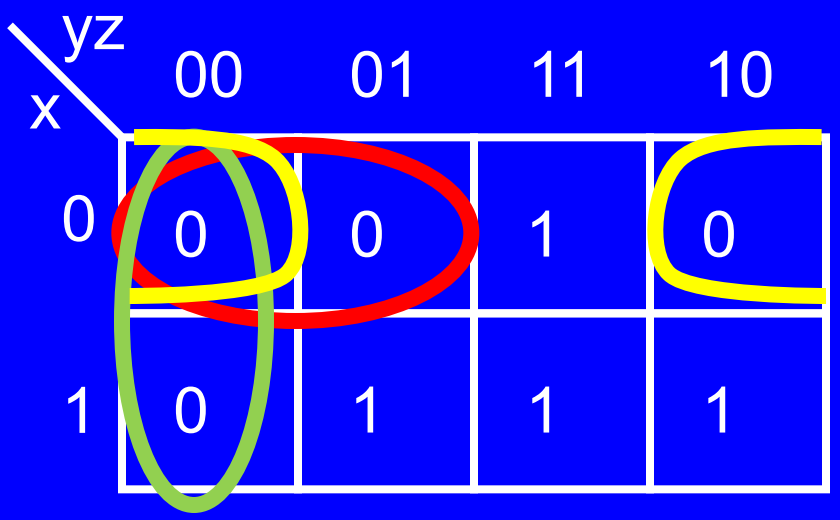


Εύρεση συμπληρώματος



F'=x'y'+y'z'+x'z'

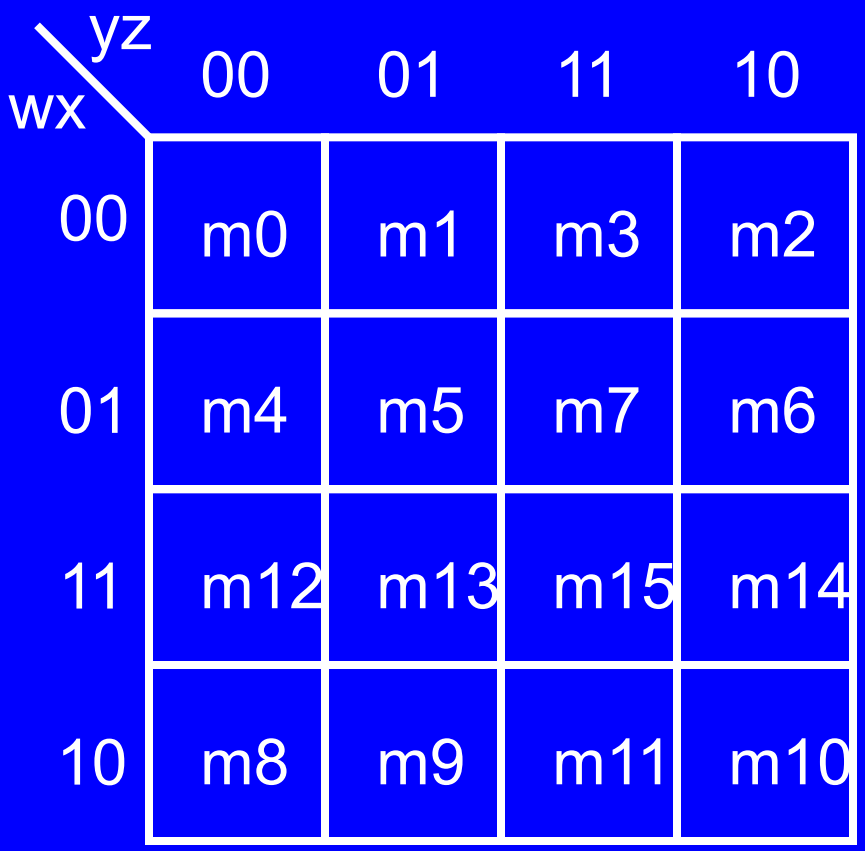
Εύρεση συμπληρώματος



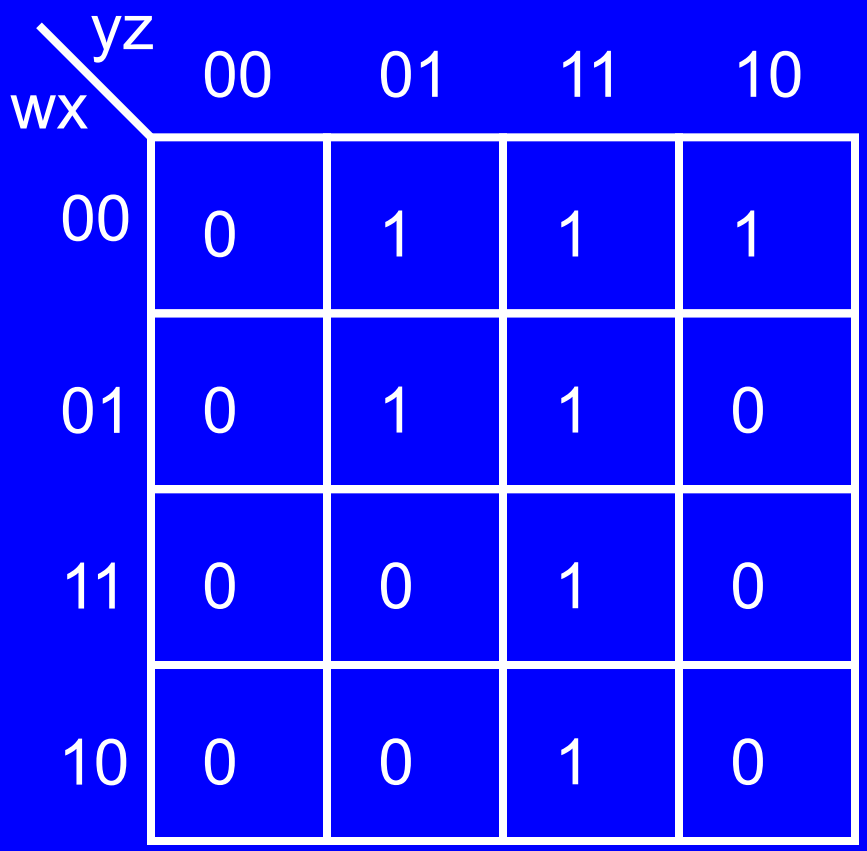
F'=x'y'+y'z'+x'z'

F=(x+y)(y+z)(x+z)

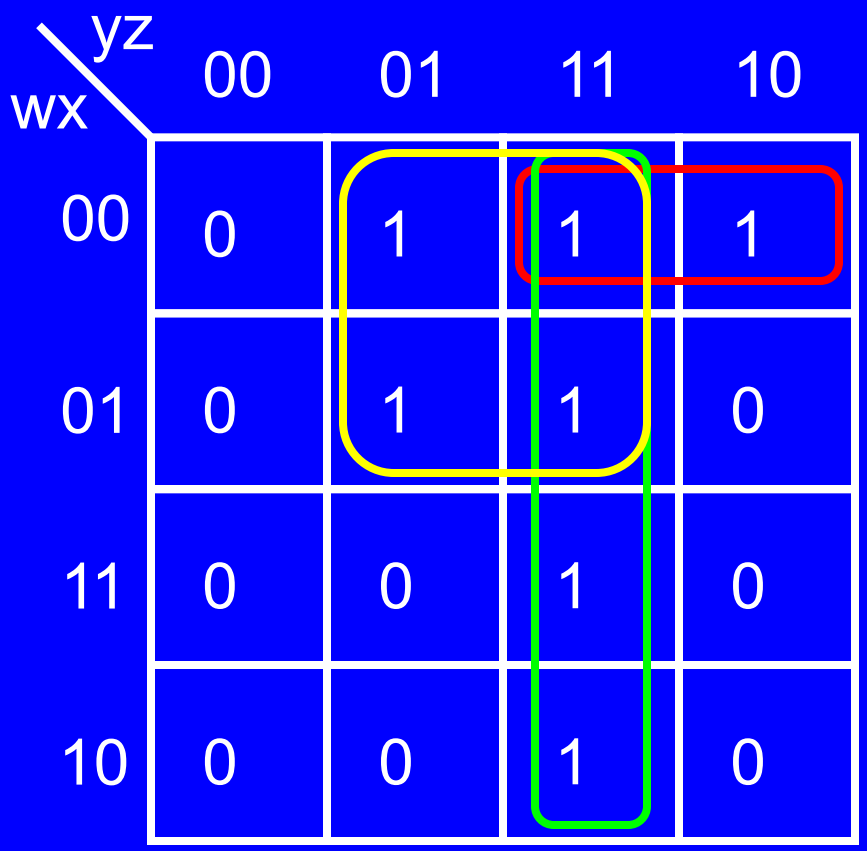
Χάρτης Karnaugh τεσσάρων μεταβλητών



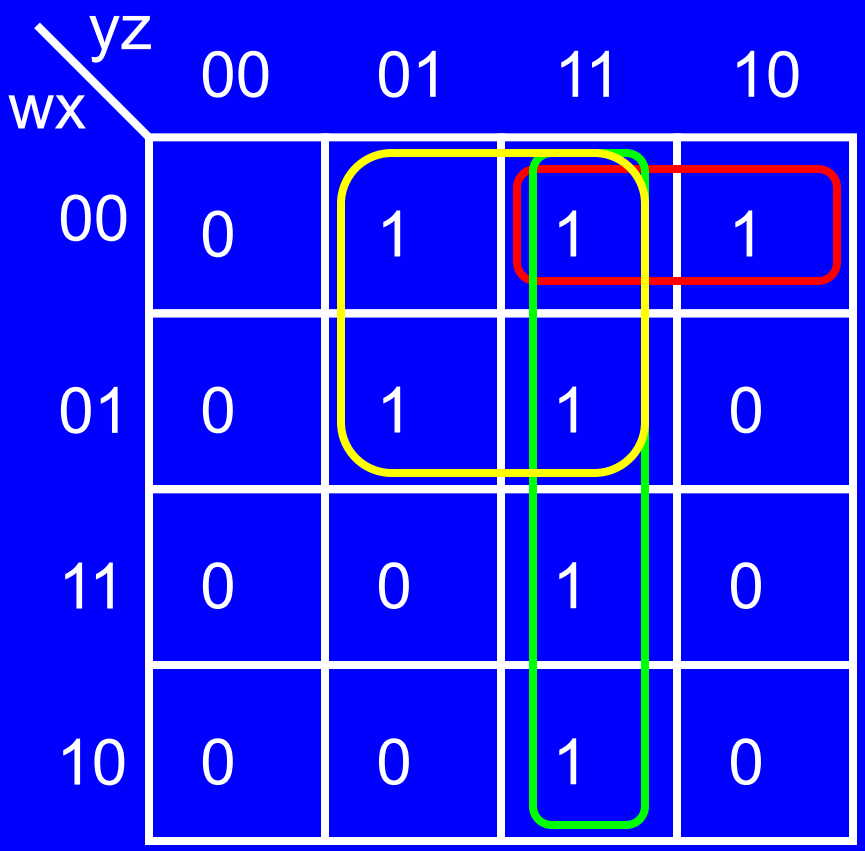
Χάρτης Karnaugh τεσσάρων μεταβλητών



Χάρτης Karnaugh τεσσάρων μεταβλητών

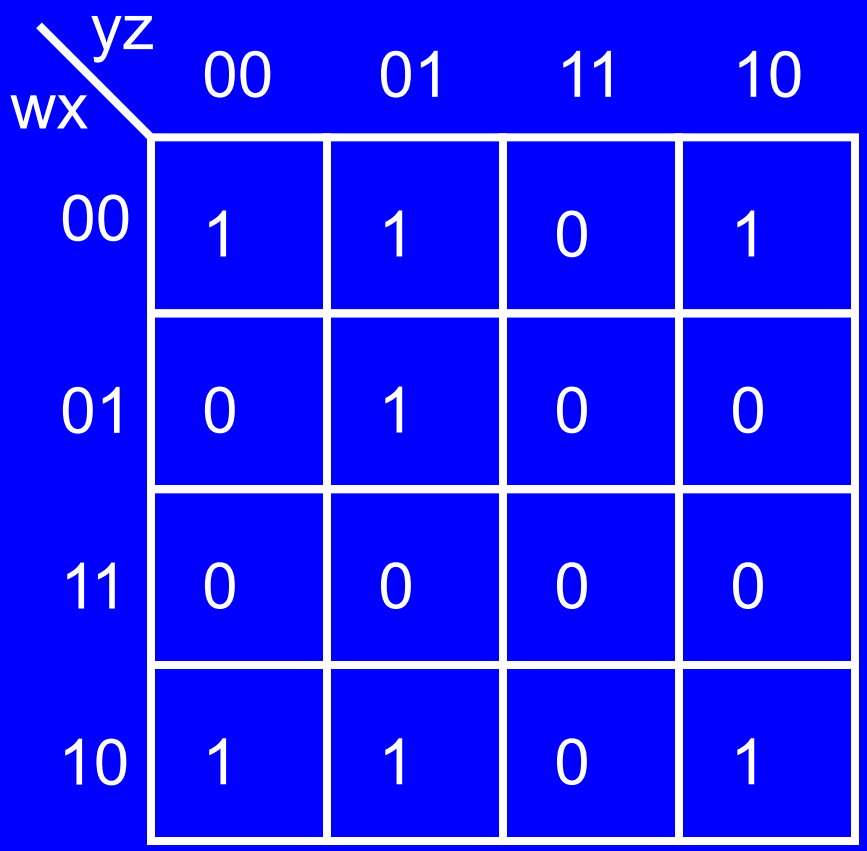


Χάρτης Karnaugh τεσσάρων μεταβλητών

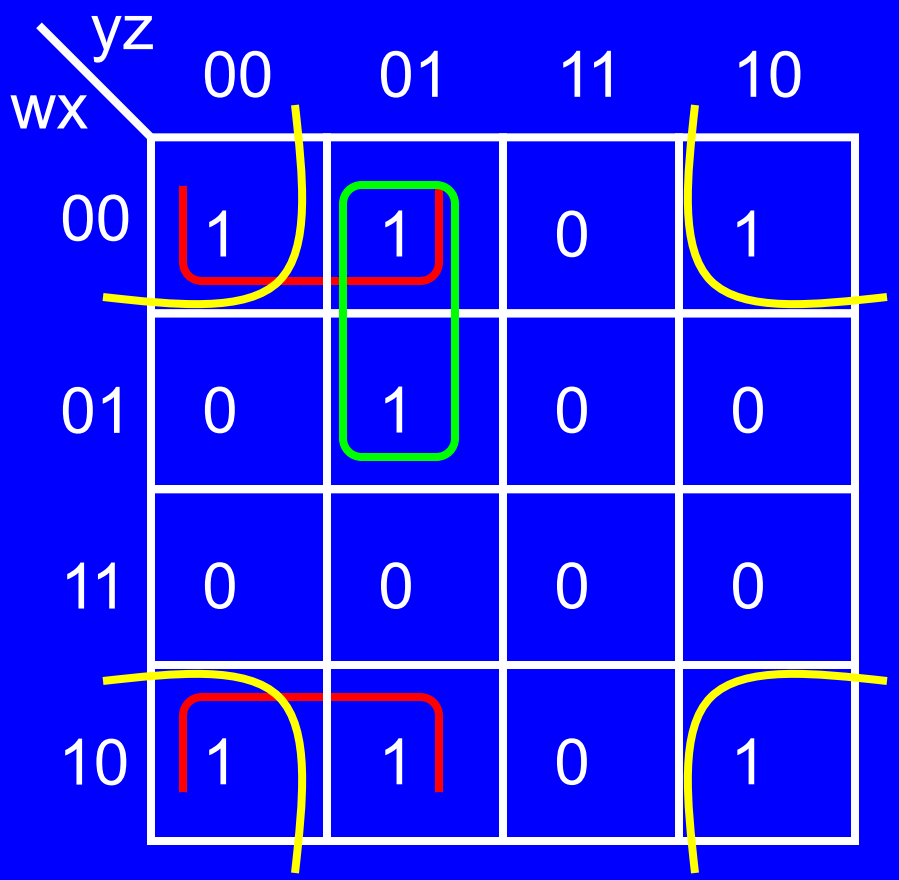


F=w'z+yz+w'x'y

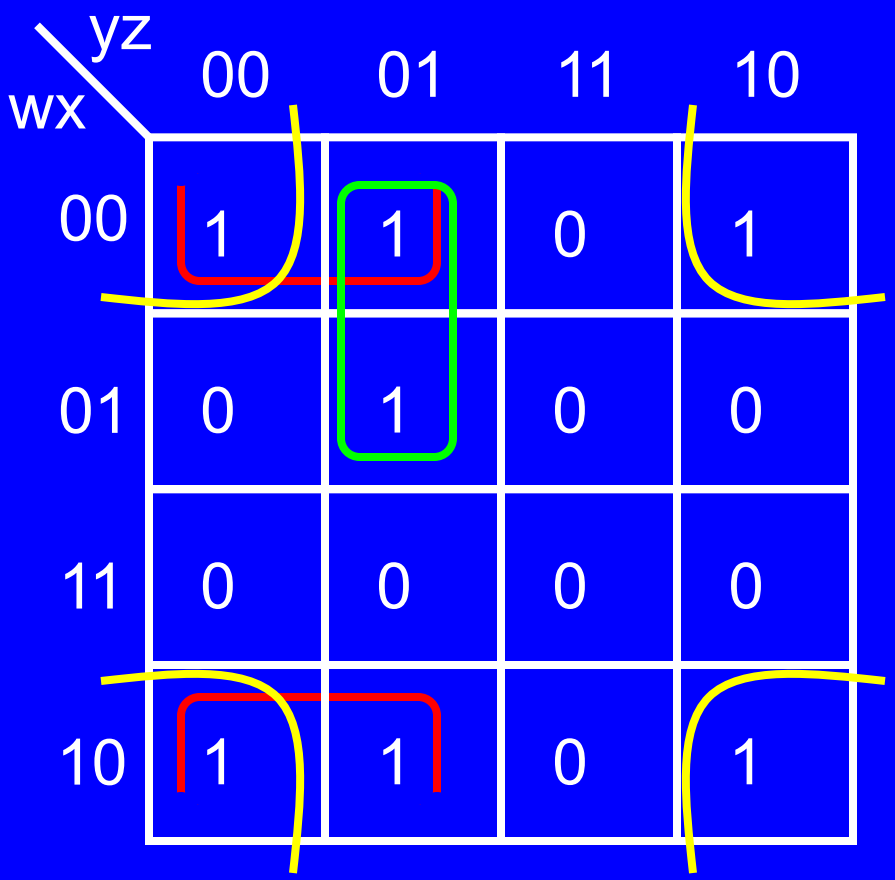
Παράδειγμα



Παράδειγμα

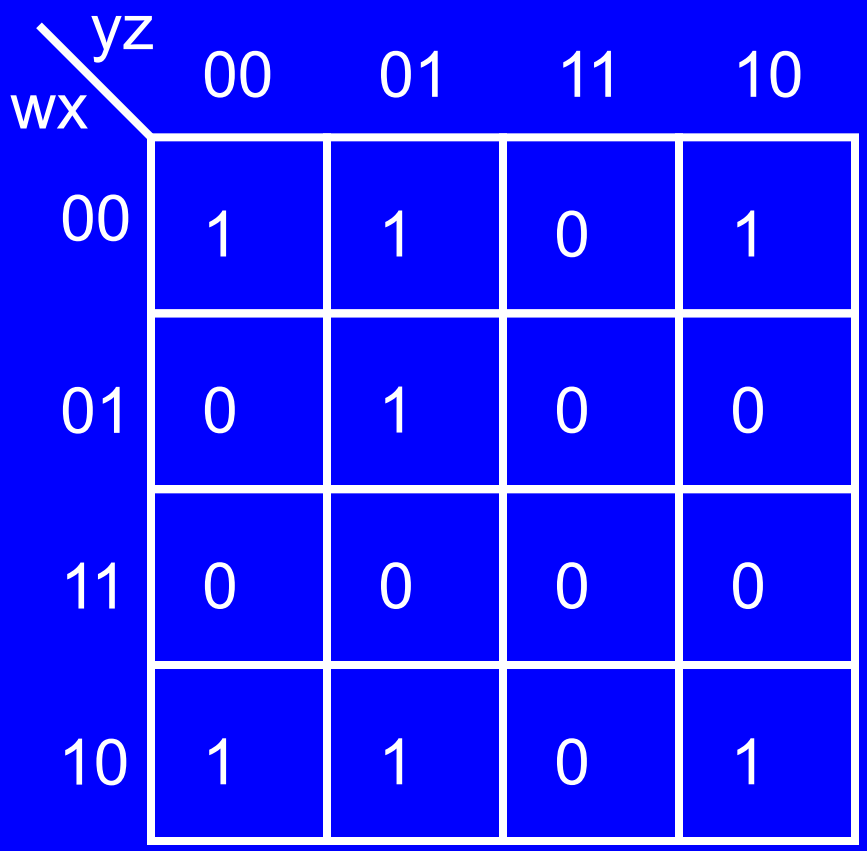


Παράδειγμα

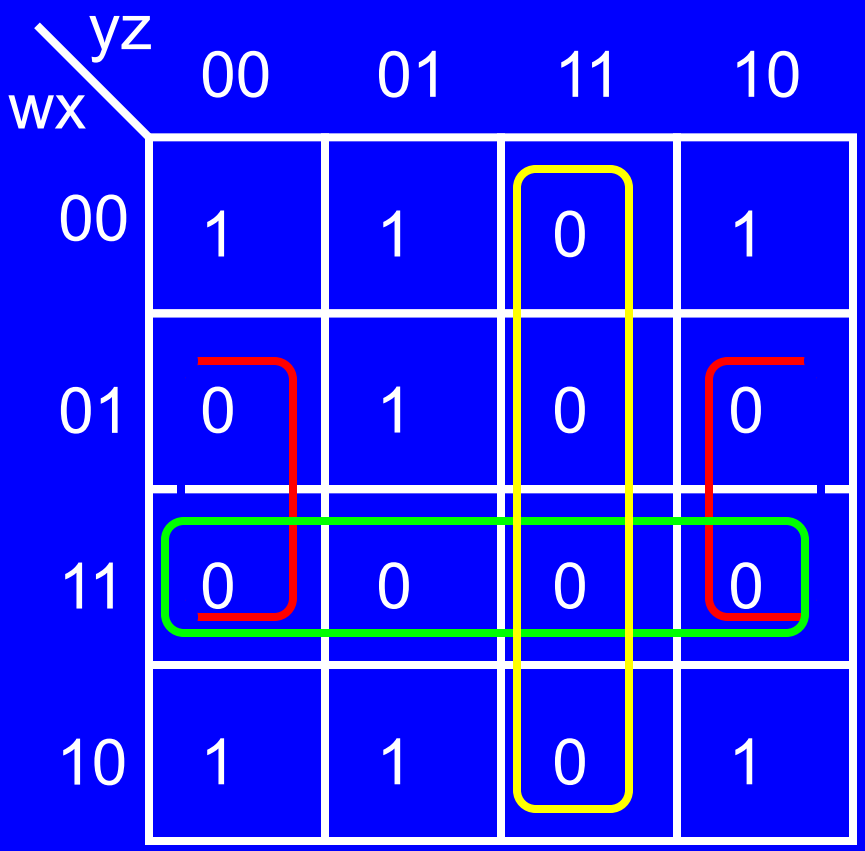


F =
x'y' +
x'z' +
w'y'z

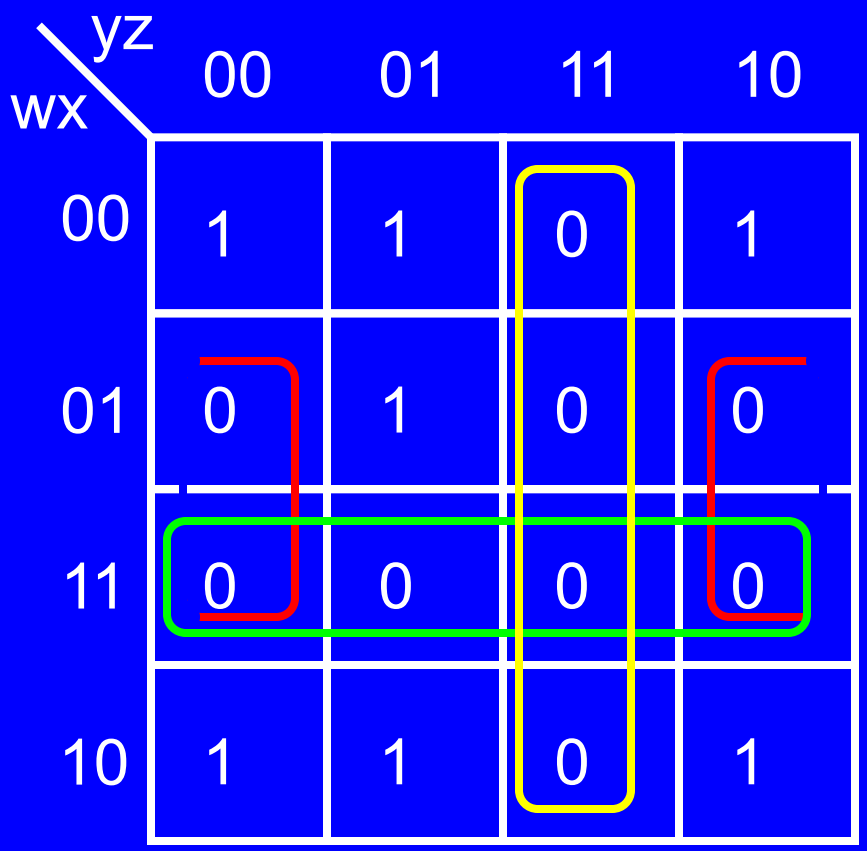
Εύρεση συμπληρώματος



Εύρεση συμπληρώματος

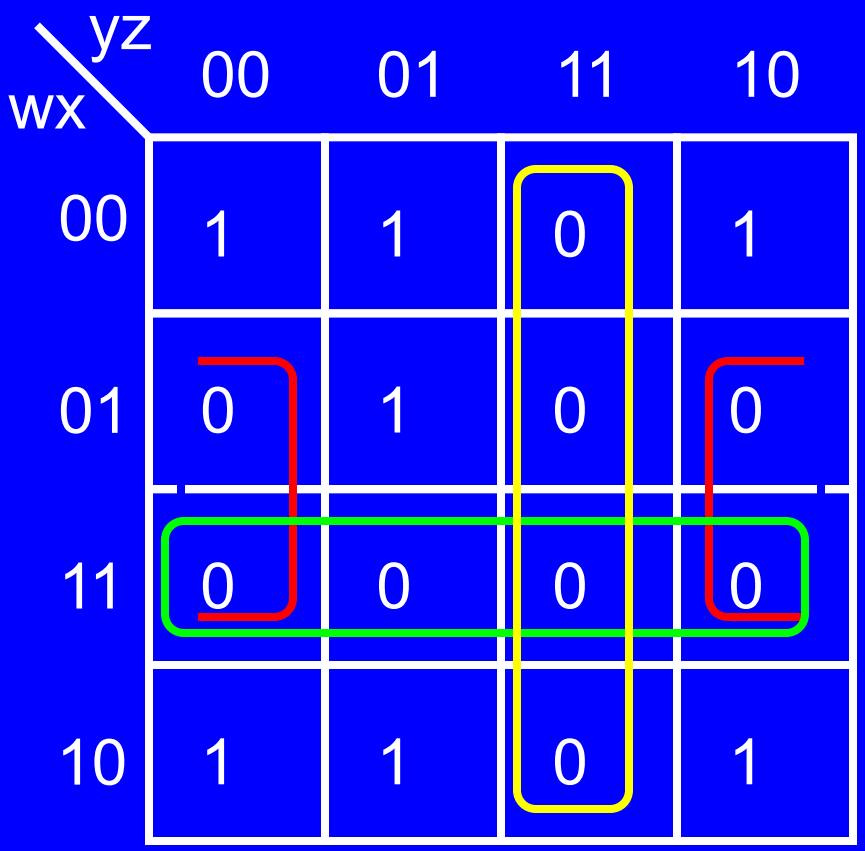


Εύρεση συμπληρώματος



F' = xz' + wx + yz

Εύρεση συμπληρώματος



F' = xz' + wx + yz

F = (x' + z) (w' + x') (y' + z')

Δεκαδικό	BCD	Excess-3	84-2-1
00	0000	0011	0000
01	0001	0100	0111
02	0010	0101	0110
03	0011	0110	0101
04	0100	0111	0100
05	0101	1000	1011
06	0110	1001	1010
07	0111	1010	1001
08	1000	1011	1000
09	1001	1100	1111

Δεκαδικό	BCD	Biquinary	2421
00	0000	0100001	0000
01	0001	0100010	0001
02	0010	0100100	0010
03	0011	0101000	0011
04	0100	0110000	0100
05	0101	1000001	1011
06	0110	1000010	1100
07	0111	1000100	1101
08	1000	1001000	1110
09	1001	1010000	1111

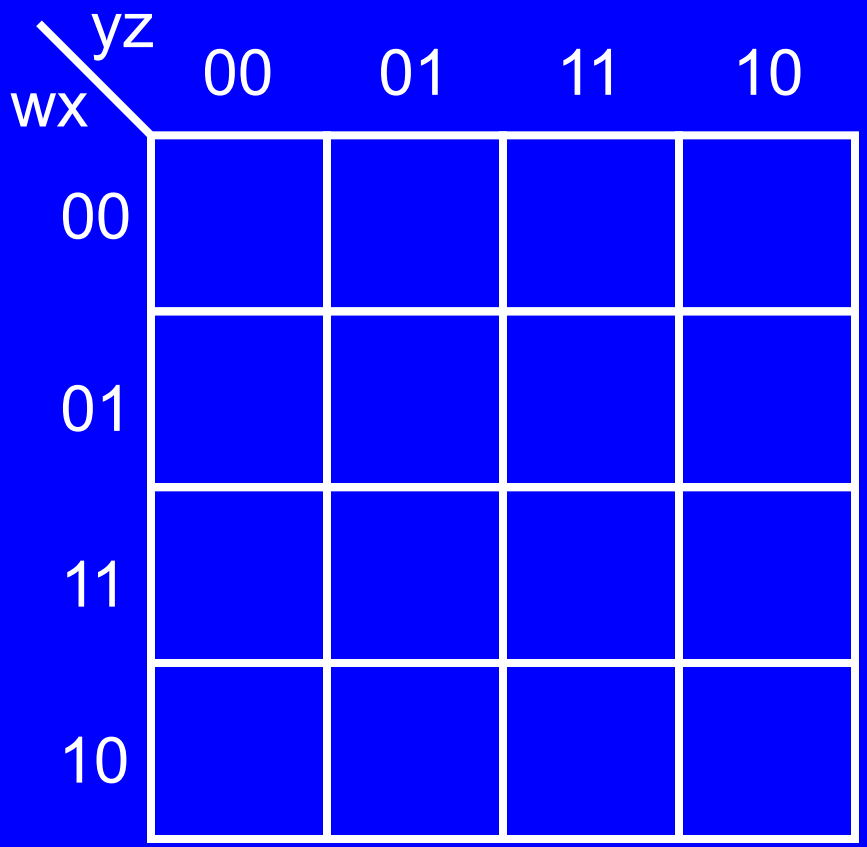
Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

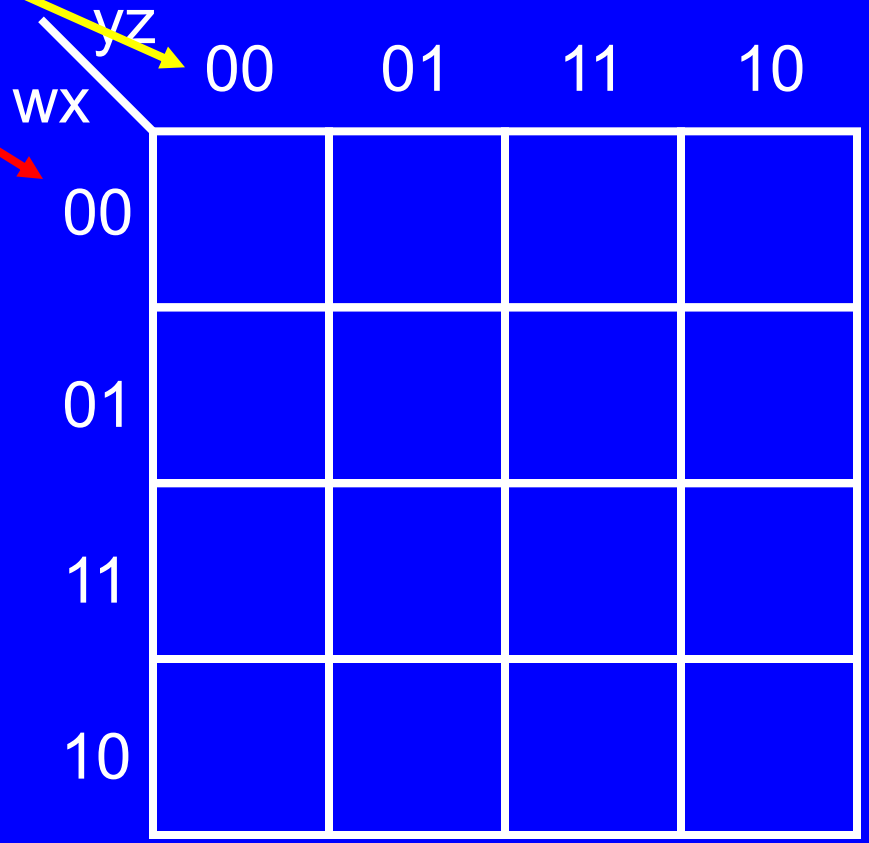
A=



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0000	0011
0001	0100
0010	0101
0011	0110
0100	0111
0101	1000
0110	1001
0111	1010
1000	1011
1001	1100
1010	XXXX
1011	XXXX
1100	XXXX
1101	XXXX
1110	XXXX
1111	XXXX

A=

wx \ yz	00	01	11	10
00	0			
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0			
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0		
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0		
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

A=

wx \ yz	00	01	11	10
00	0	0		0
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

A=

wx \ yz	00	01	11	10
00	0	0		0
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01				
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0			
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0			
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0	1		
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11				
10				

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11				
10	1			

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11				
10	1	1	X	X

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11	X			
10	1	1	X	X

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11	X	X	X	X
10	1	1	X	X

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

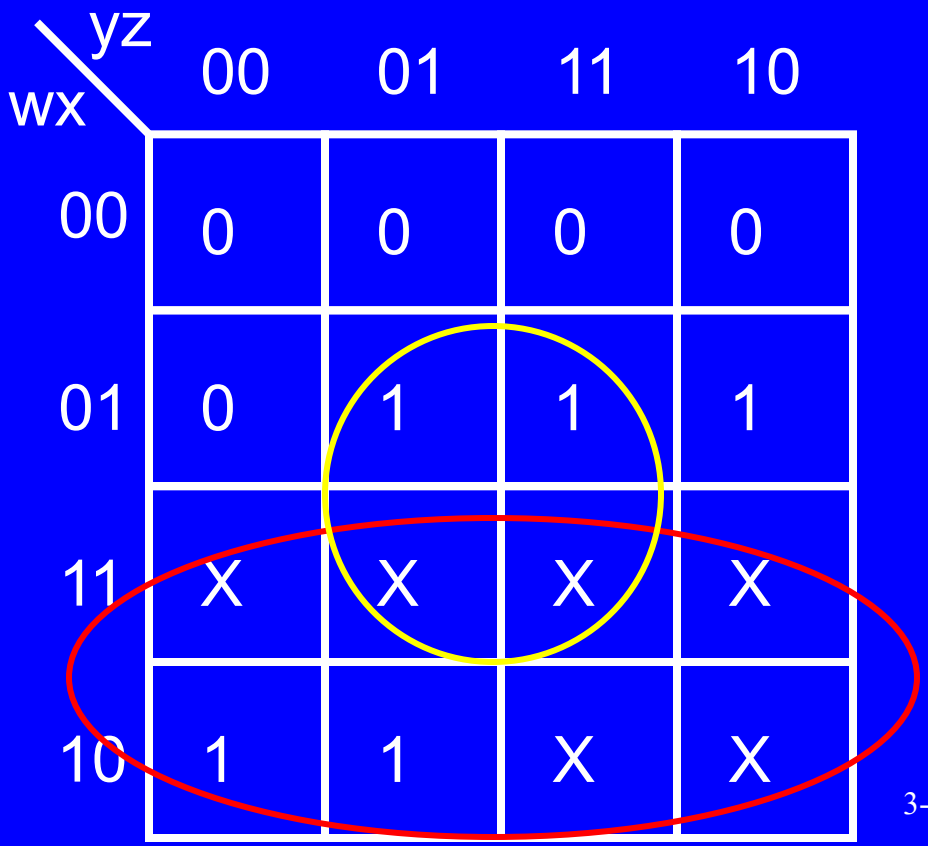
A=

wx \ yz	00	01	11	10
00	0	0	0	0
01	0	1	1	1
11	X	X	X	X
10	1	1	X	X

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

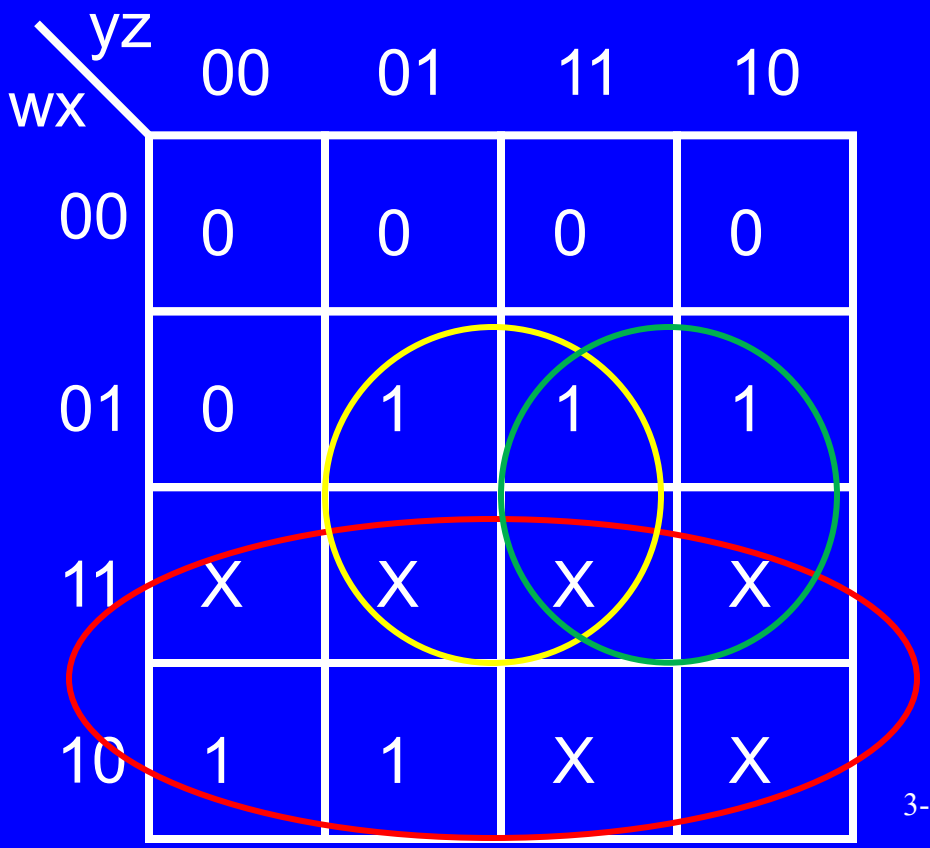
A=



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

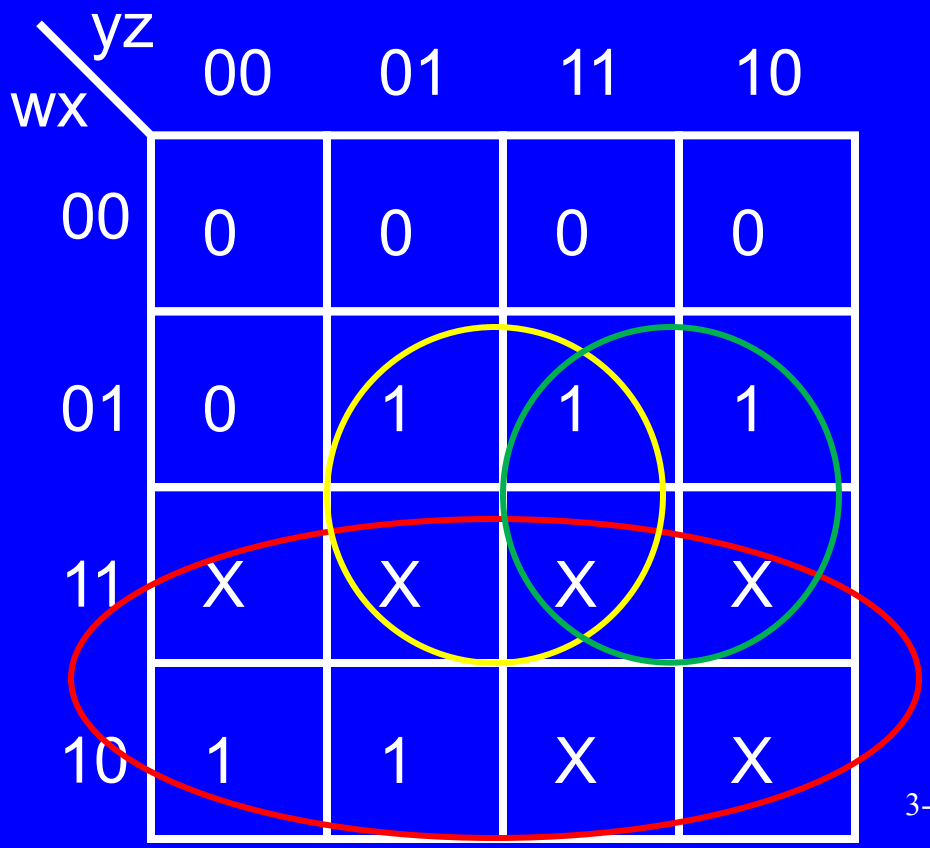
A=



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

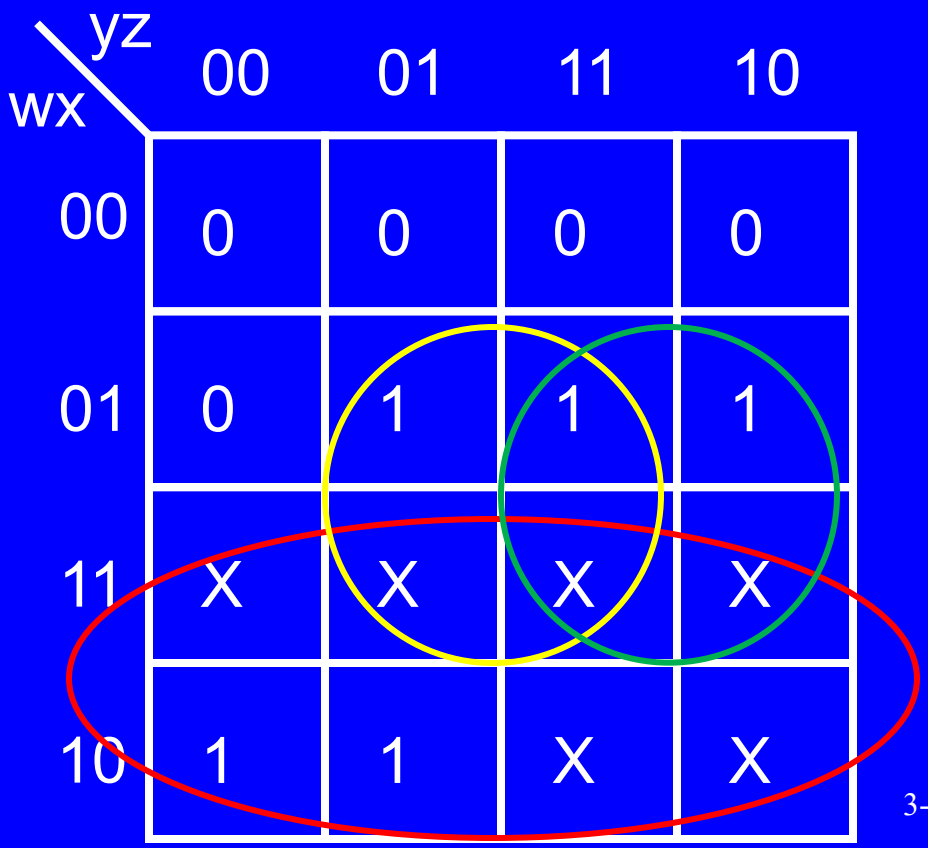
A=w



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

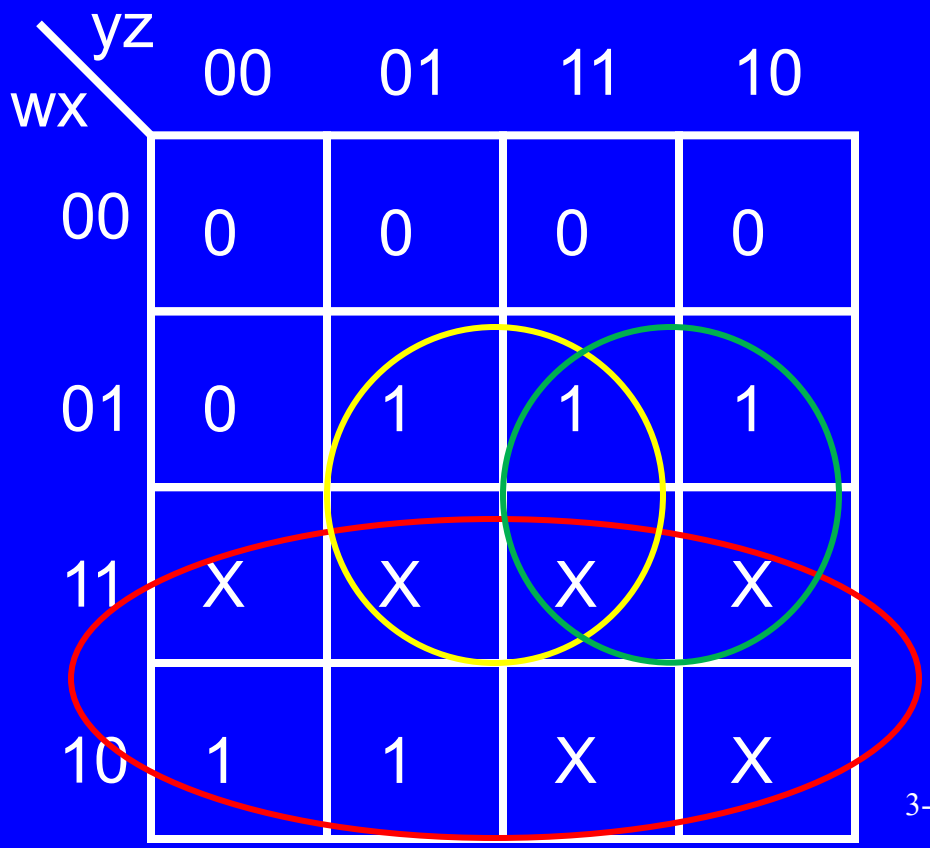
A=w+xz



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

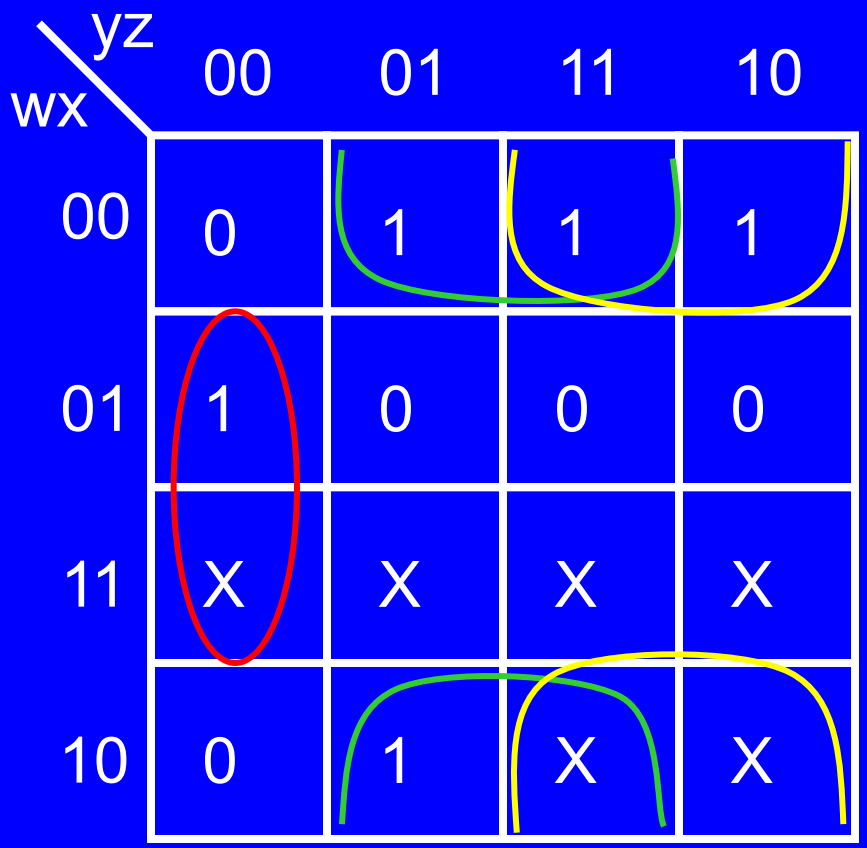
A=w+xz+xy



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0000	0011
0001	0100
0010	0101
0011	0110
0100	0111
0101	1000
0110	1001
0111	1010
1000	1011
1001	1100
1010	XXXX
1011	XXXX
1100	XXXX
1101	XXXX
1110	XXXX
1111	XXXX

A=w+xz+xy B=xy'z'+x'z+x'y



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0000	0011
0001	0100
0010	0101
0011	0110
0100	0111
0101	1000
0110	1001
0111	1010
1000	1011
1001	1100
1010	XXXX
1011	XXXX
1100	XXXX
1101	XXXX
1110	XXXX
1111	XXXX

A=w+xz+xy B=xy'z'+x'z+x'y

C=y'z'+yz

wx \ yz	00	01	11	10
00	1	0	1	0
01	1	0	1	0
11	X	X	X	X
10	1	0	X	X

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A=w+xz+xy B=xy'z'+x'z+x'y

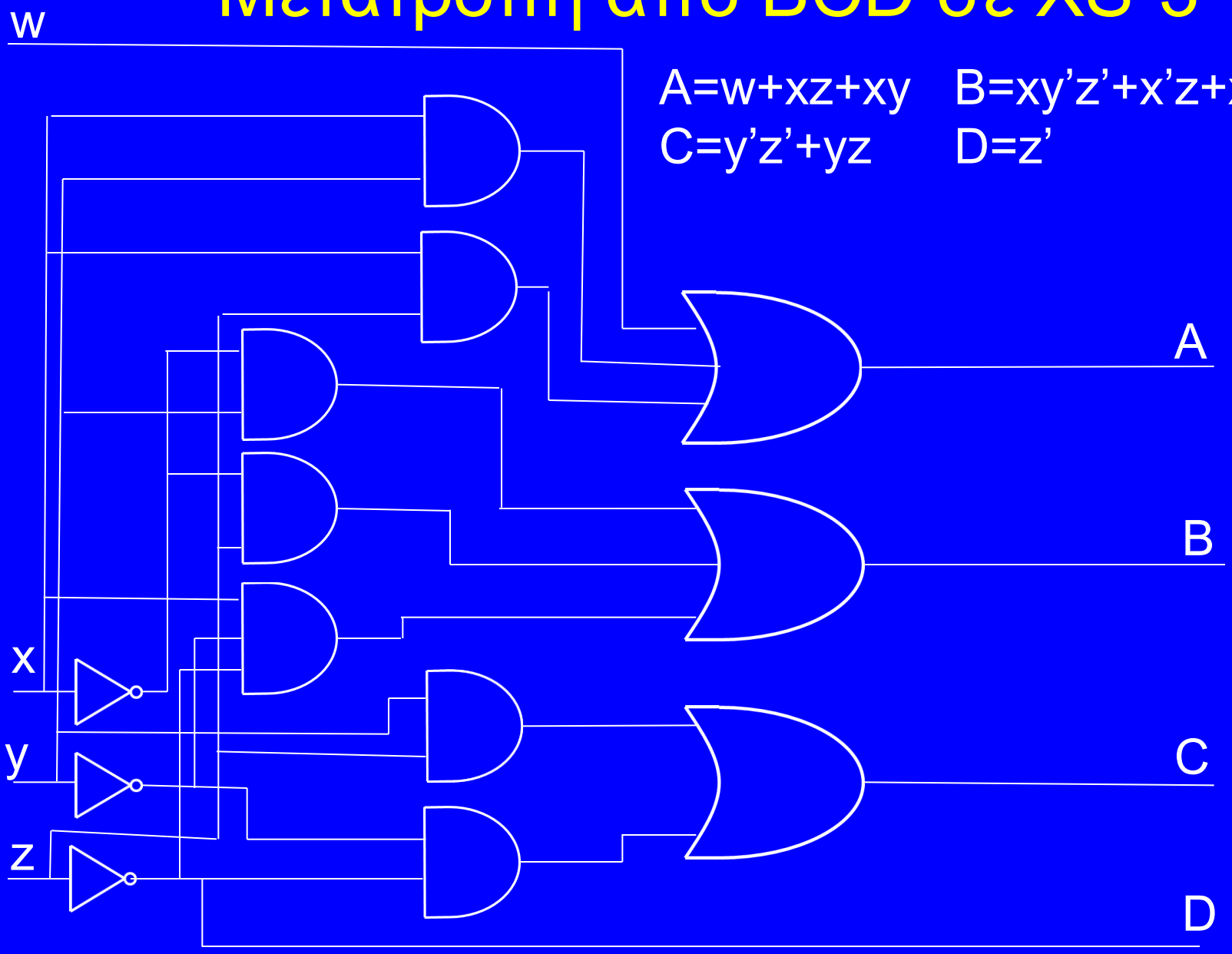
C=y'z'+yz D=z'

wx \ yz	00	01	11	10
00	1	0	0	1
01	1	0	0	1
11	X	X	X	X
10	1	0	X	X

Μετατροπή από BCD σε XS-3

A=w+xz+xy B=xy'z'+x'z+x'y

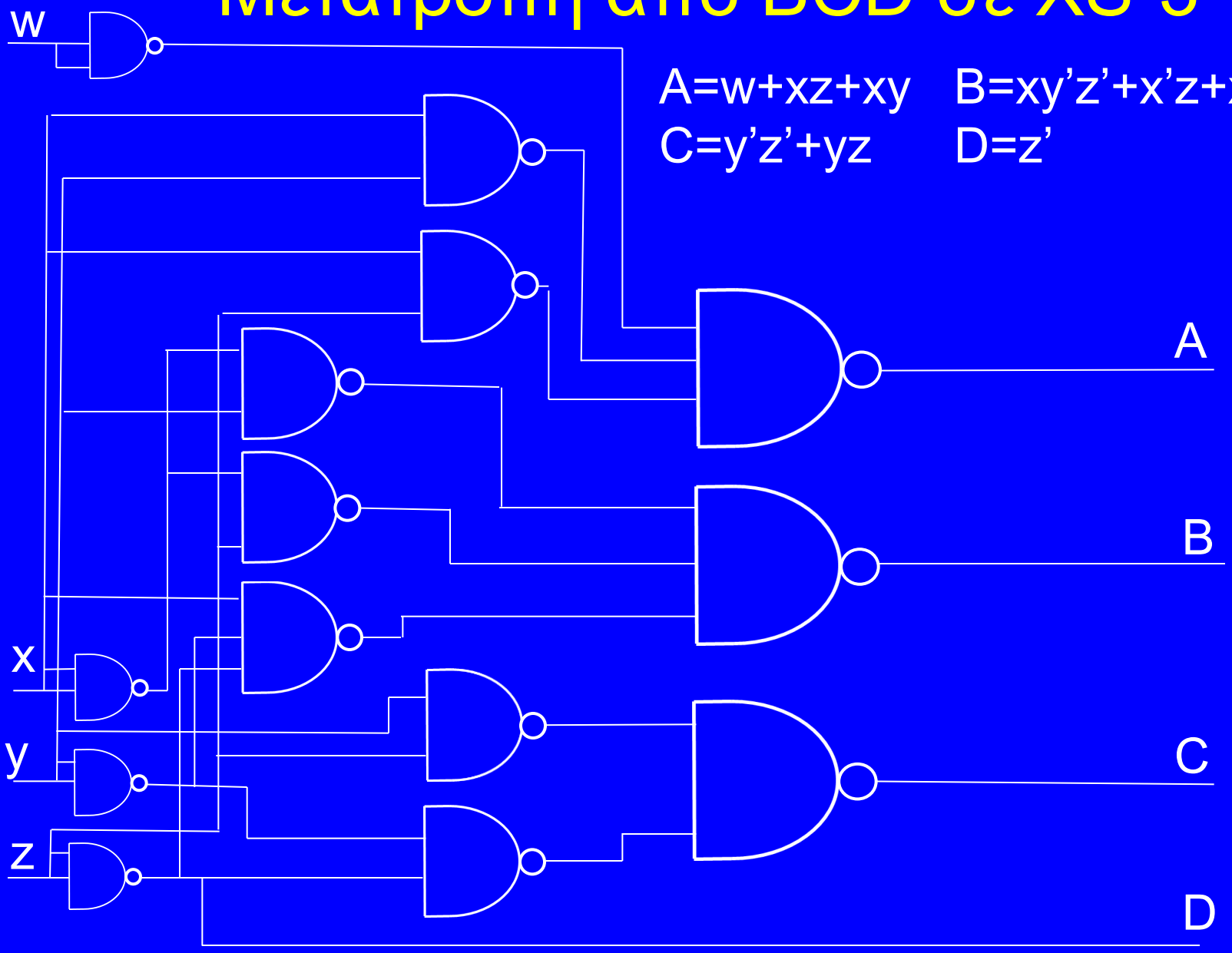
C=y'z'+yz D=z'



Μετατροπή από BCD σε XS-3

A=w+xz+xy B=xy'z'+x'z+x'y

C=y'z'+yz D=z'

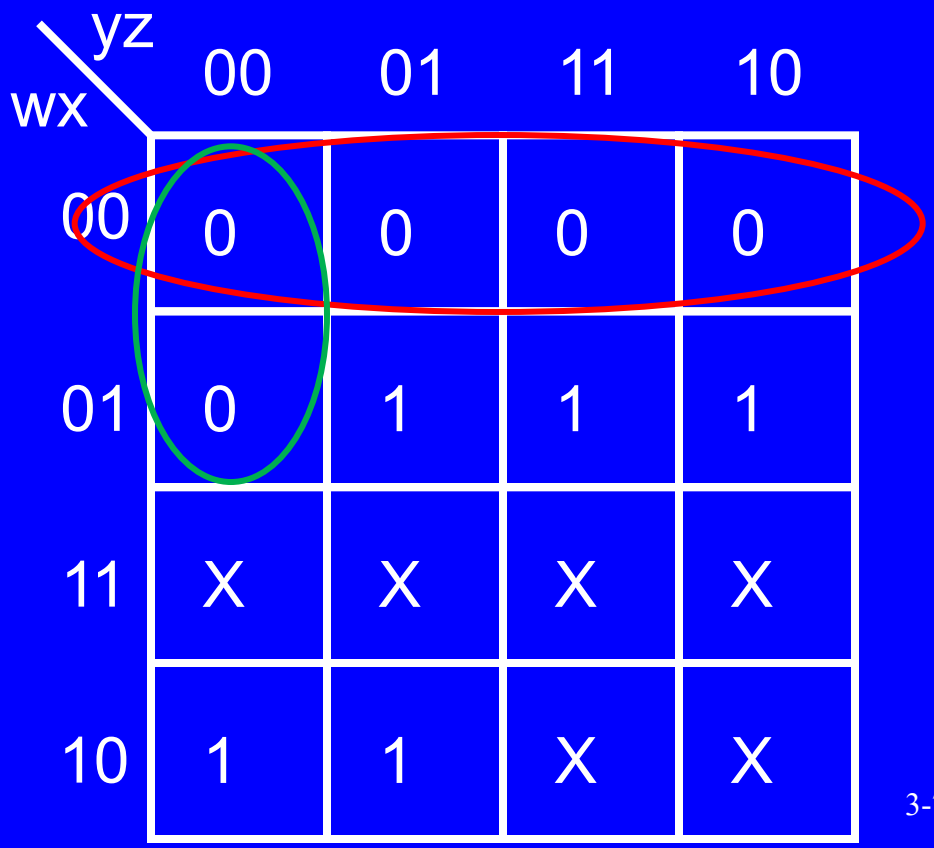


Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

A'=w'x'+w'y'z'

A=(w+x)(w+y+z)

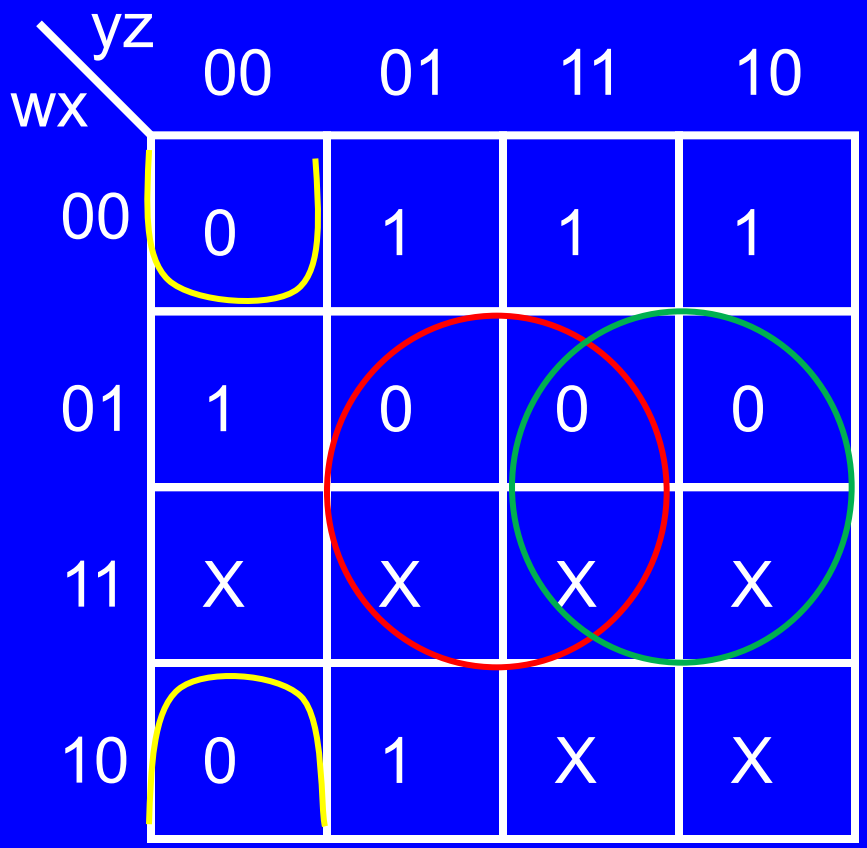


Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

B'=xz+xy+x'y'z'

B=(x'+z')(x'+y')(x+y+z)



Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

C'=y'z+yz'

C=(y+z')(y'+z)

wx \ yz	00	01	11	10
00	1	0	1	0
01	1	0	1	0
11	X	X	X	X
10	1	0	X	X

Μετατροπή από BCD σε XS-3

WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	XXXX
1 0 1 1	XXXX
1 1 0 0	XXXX
1 1 0 1	XXXX
1 1 1 0	XXXX
1 1 1 1	XXXX

D’=z

D=z’

wx \ yz	00	01	11	10
00	1	0	0	1
01	1	0	0	1
11	X	X	X	X
10	1	0	X	X

Μετατροπή από BCD σε XS-3

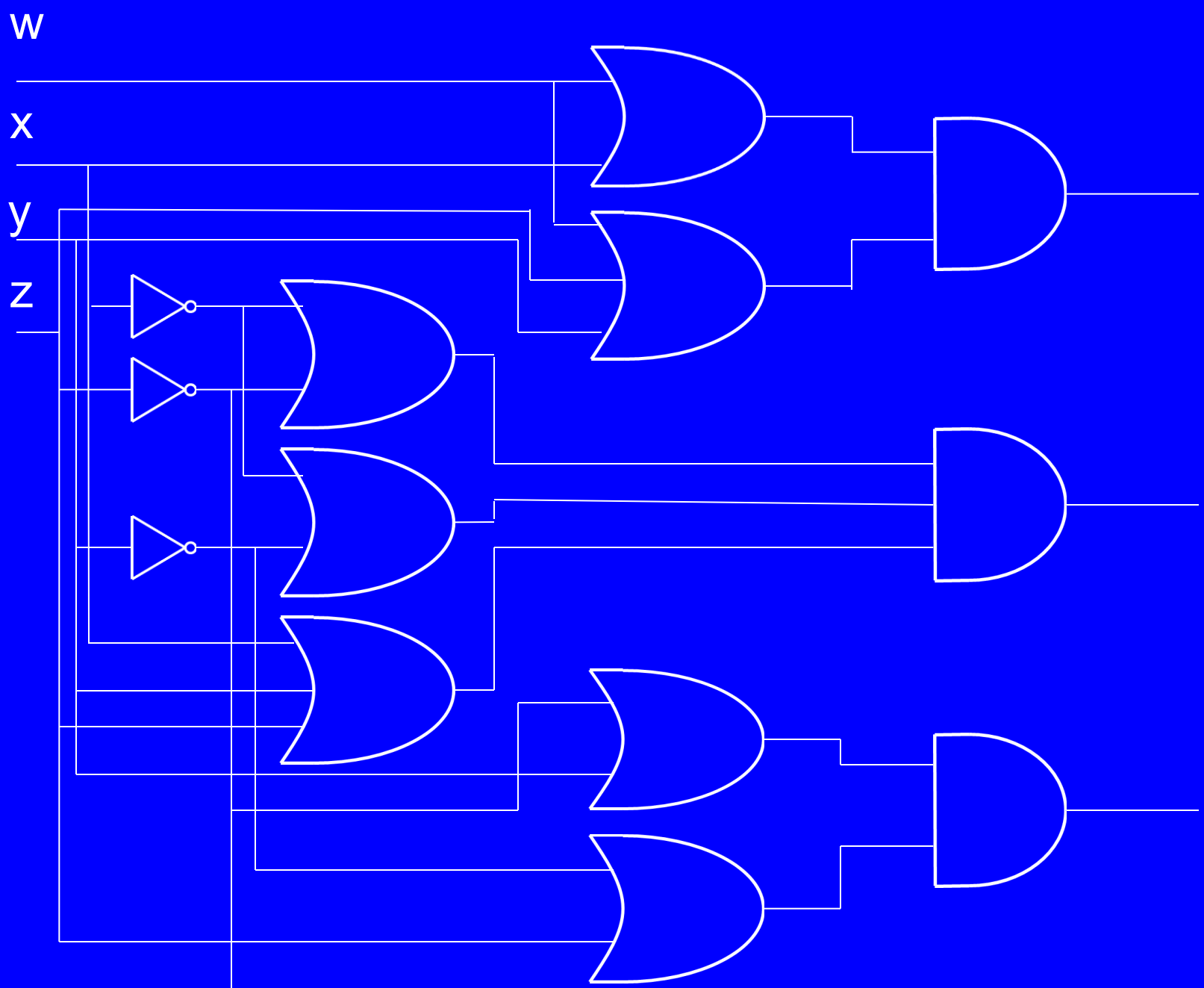
WXYZ	ABCD
0 0 0 0	0 0 1 1
0 0 0 1	0 1 0 0
0 0 1 0	0 1 0 1
0 0 1 1	0 1 1 0
0 1 0 0	0 1 1 1
0 1 0 1	1 0 0 0
0 1 1 0	1 0 0 1
0 1 1 1	1 0 1 0
1 0 0 0	1 0 1 1
1 0 0 1	1 1 0 0
1 0 1 0	X X X X
1 0 1 1	X X X X
1 1 0 0	X X X X
1 1 0 1	X X X X
1 1 1 0	X X X X
1 1 1 1	X X X X

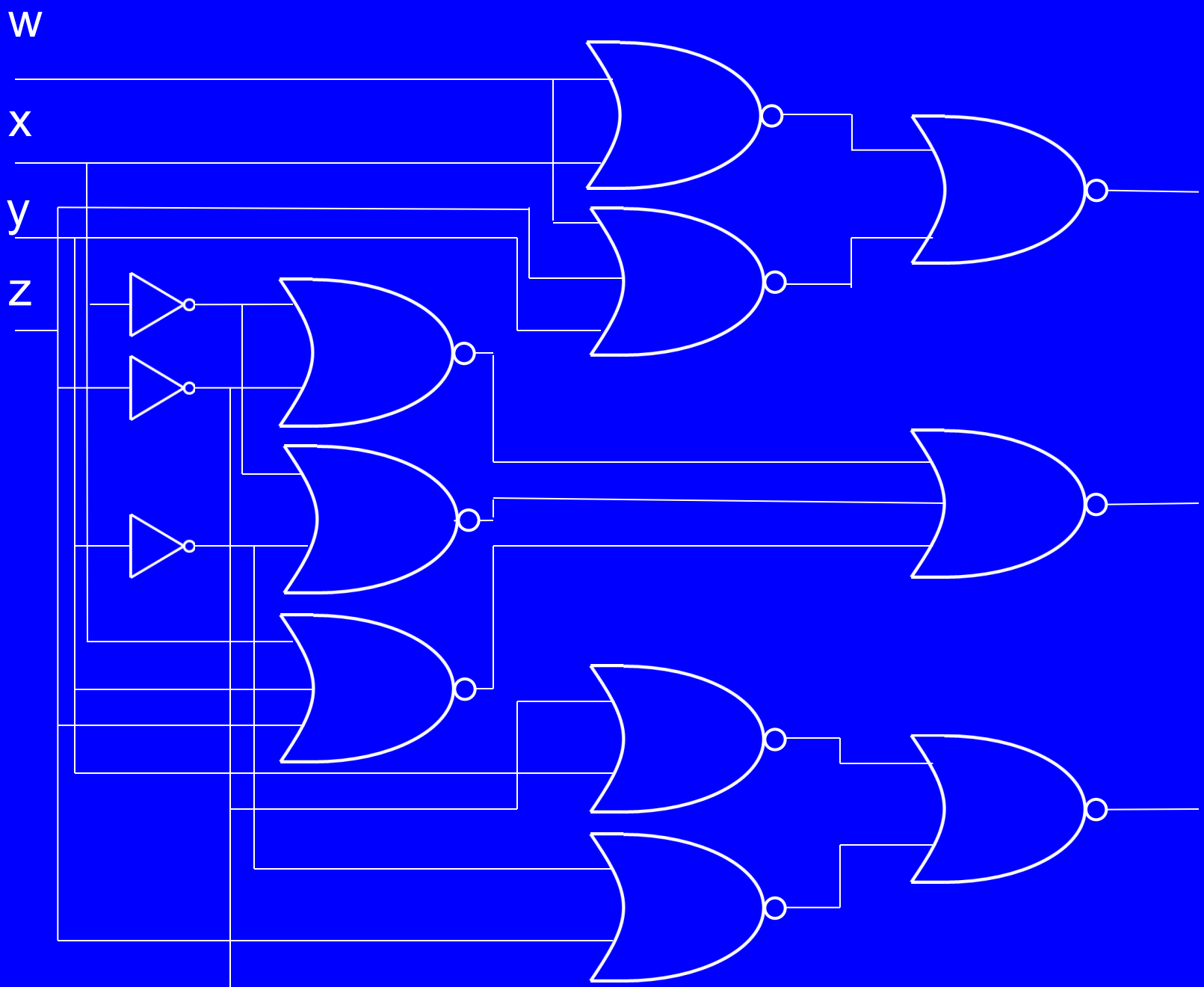
A=(w+x)(w+y+z)

B=(x'+z')(x'+y')(x+y+z)

C=(y+z')(y'+z)

D=z'


w
x
y
z


w
x
y
z