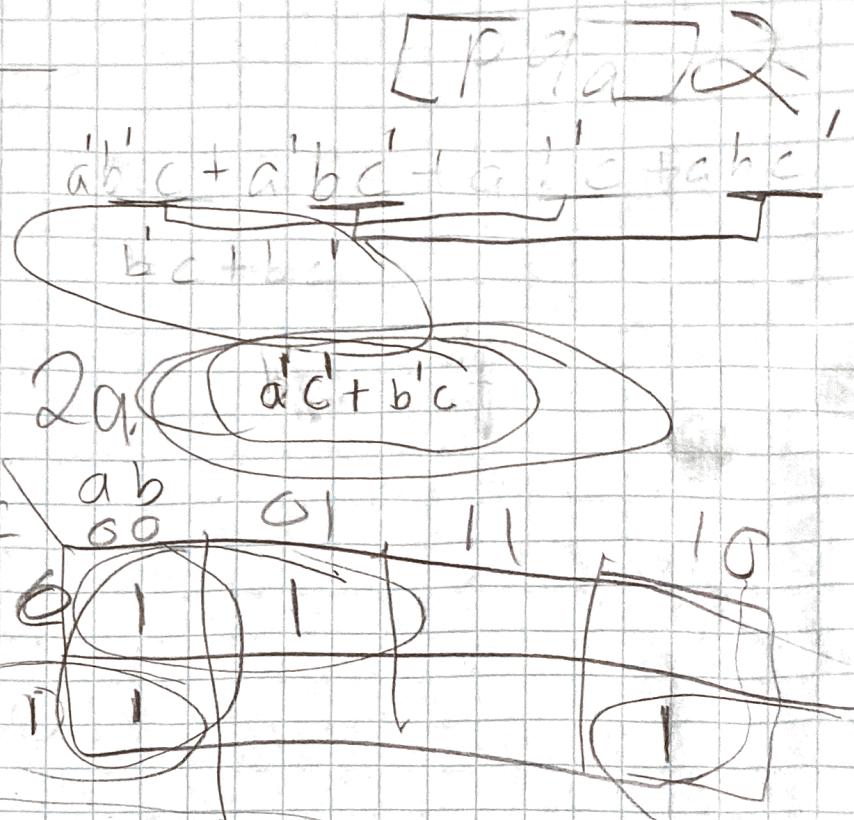
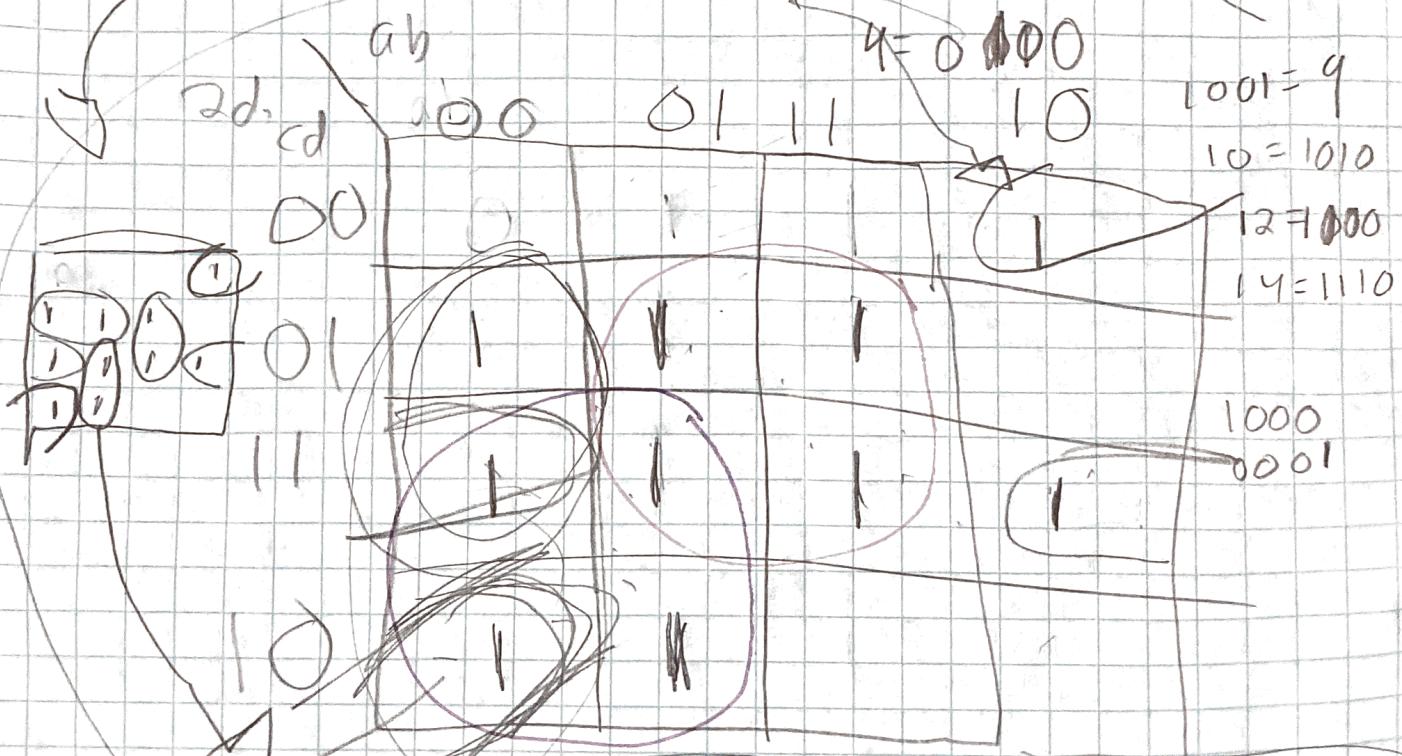


2a	a	b	c
0	0	0	0
1	0	0	1
1	0	1	0
0	0	1	1
0	1	0	0
1	1	0	1
1	1	1	0
0	1	1	1

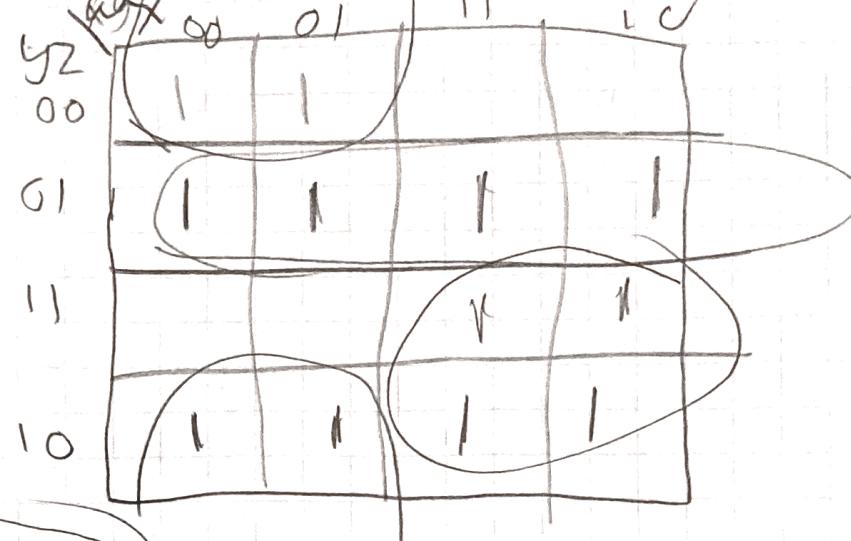


2, c



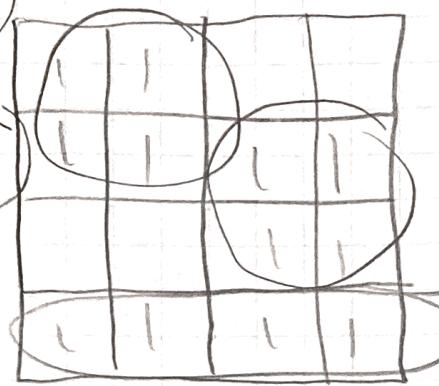
$$2d \quad b'd' + a'b'c + b'c'd + a'c'd + ab'd$$

3,2 K.



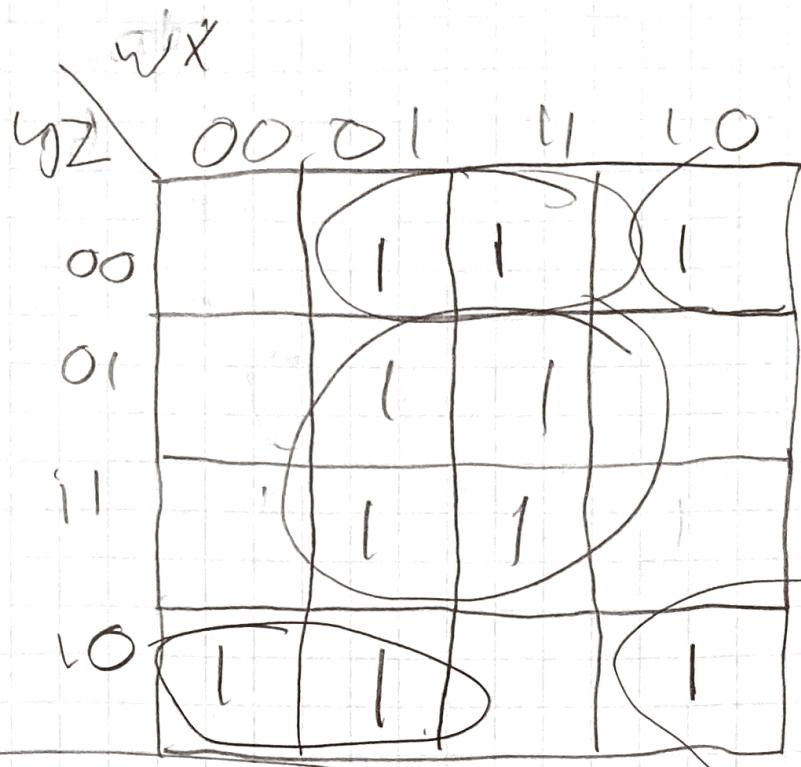
$$f_1 = w'z' + y'z + wz$$

$$f_2 = w'y' + wz + yz'$$



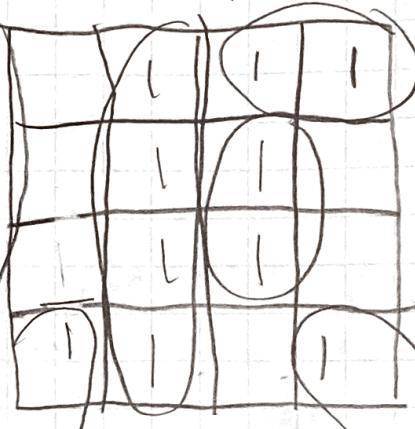
2F

4.



$$f_1 = \overline{w}\overline{y}z' + \overline{x}\overline{y}z' + xz + wx$$

$$f_2 = x'\overline{y}z' + \overline{w}x + wxyz + w\overline{y}z'$$

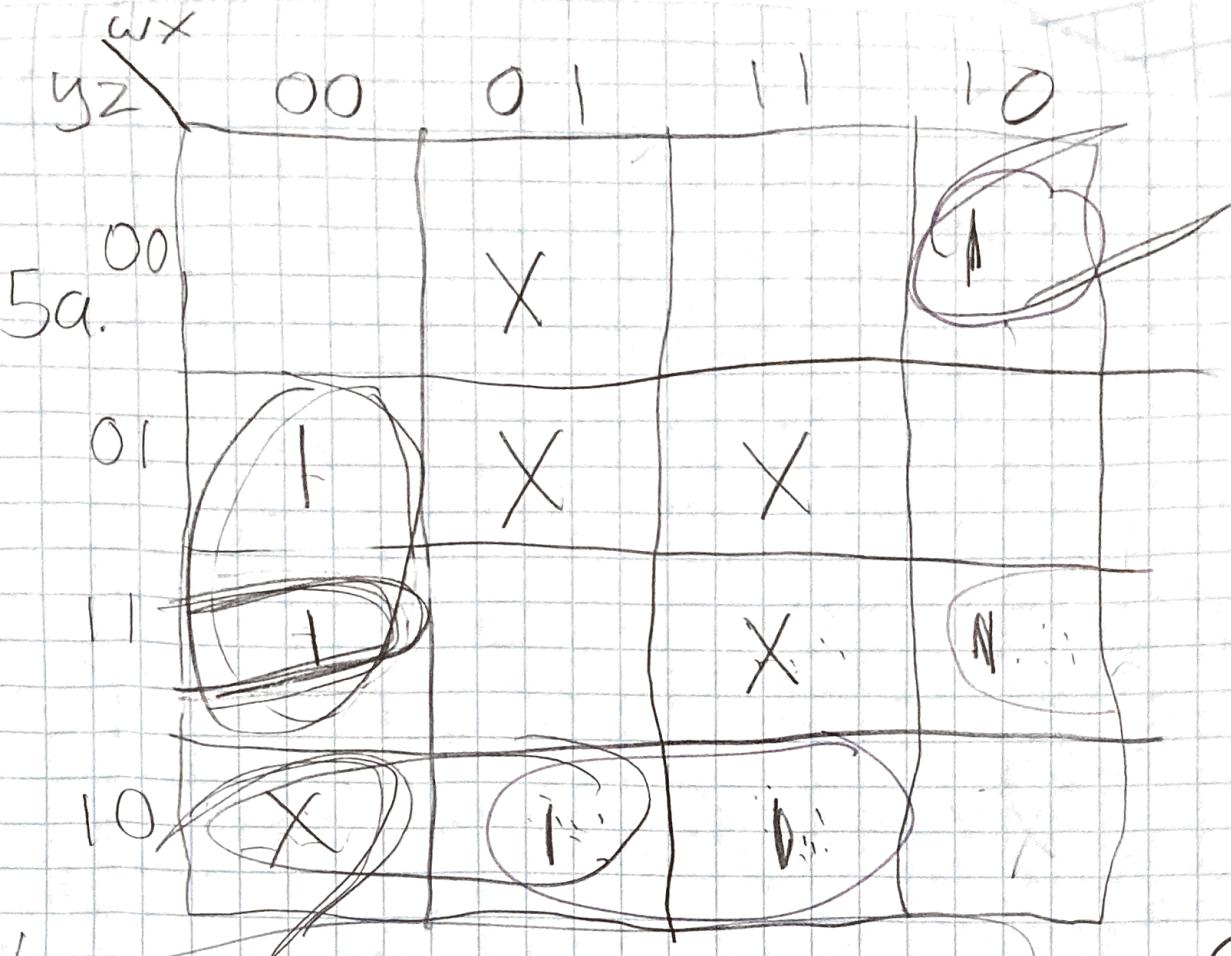


		$a'b$		
$c'd$	00	01	11	10
00	1	1	1	1
01	1	1	1	1
11	1	1	1	1
10	1	1	1	1

$$ab + b'c'd' + a'b'c' + b'cd$$

Prime Implicants =  $ab, b'c'd', a'b'c' + b'cd$

Essential prime implicants  $ab, a'b'c'$

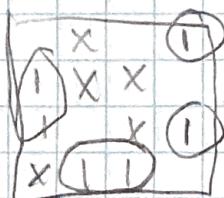


$$f_1 = x'z' + w'xz + yz' + wyz$$

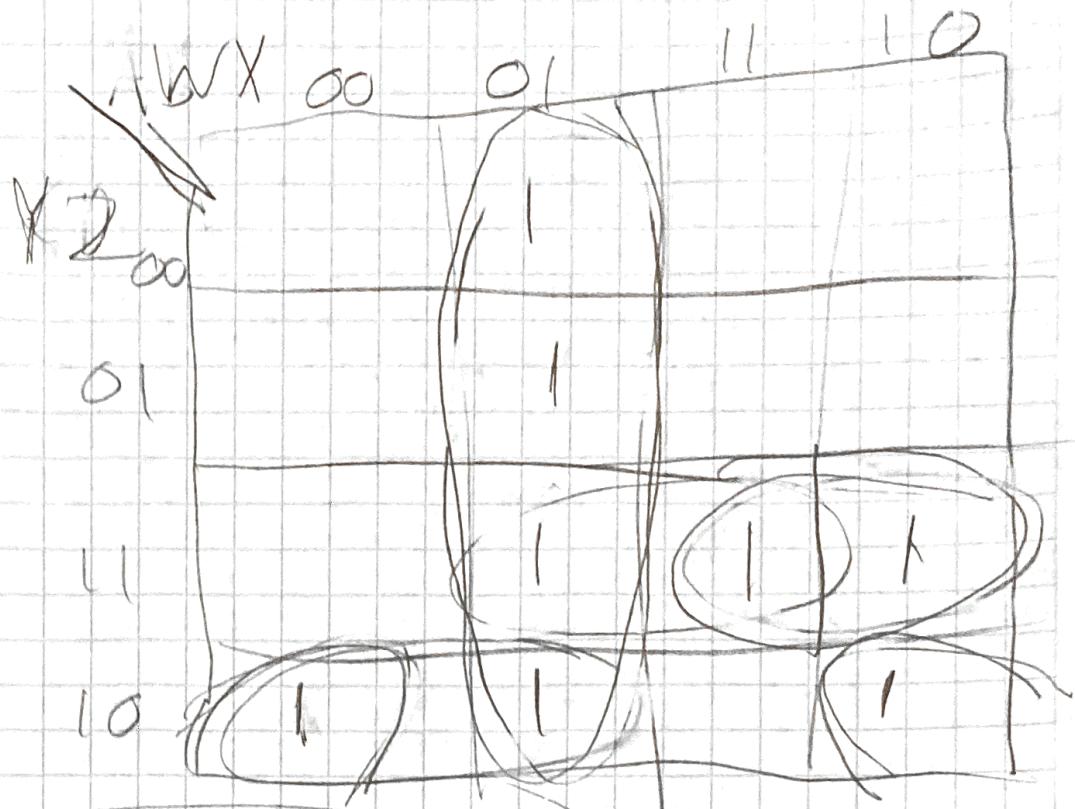
$$f_2 = w'y'z + x'yz + xy'z' + x'z'$$

$$f_3 = w'x'z + xy'z' + wx'y'z + wx'yz$$

$$2. \quad x'z' + x'yz' + w'yz + wx'y + wyz +$$



7 b.



SOP

$$w'x + x'yz' + wyz$$

POS

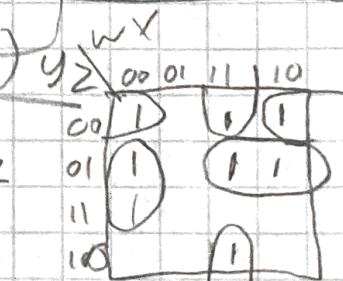
~~(P14a)~~

$$w'x + (z+x'y)(z+yw)$$

$$\cancel{[(P14a)(x'+w)(x+yz') + (wyz)]}$$

$$x'y'z' + wxz' + wy'z + wxyz$$

$$POS = (x+y+z)(w+x'+z)(w+y+z')(w+x+z')$$



8. 7j

ab	00	01	11	10
cd	1			
00	1	X		
01				
11	X	X	1	X
10		X		

ab	00	01	11	10
cd	1			
00		X		
01				
11	X	X		X
10	D	D	X	X

SOP  $a'b'c' + bc$

POS

[P5A]

bcd'

$(b+d)(a+c+d')(b+c+d')$

PPA  $(d+a)(b+c)(b'X^{b+c})$

$bc' + ab'c' + b'cd'$

POS  $(b'+c)(a'+b+c)(b+c'd')$

0	0	0
X	X	
1		X

POS  $a'c' + a'b'c' + b'cd'$

POS  $(a'+c)(a+b'+c)(b+c'+d)$

0	0	0
X	X	
1		X