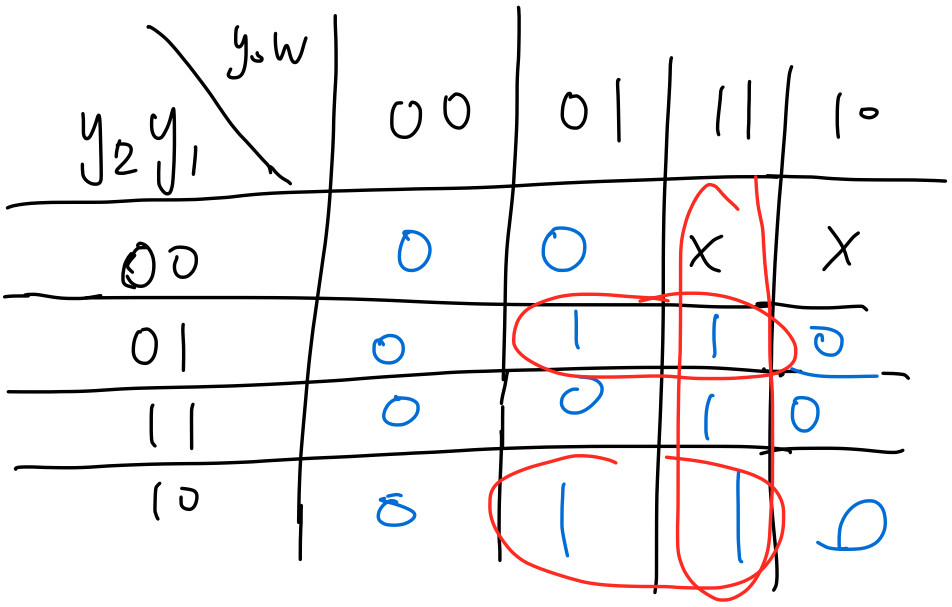
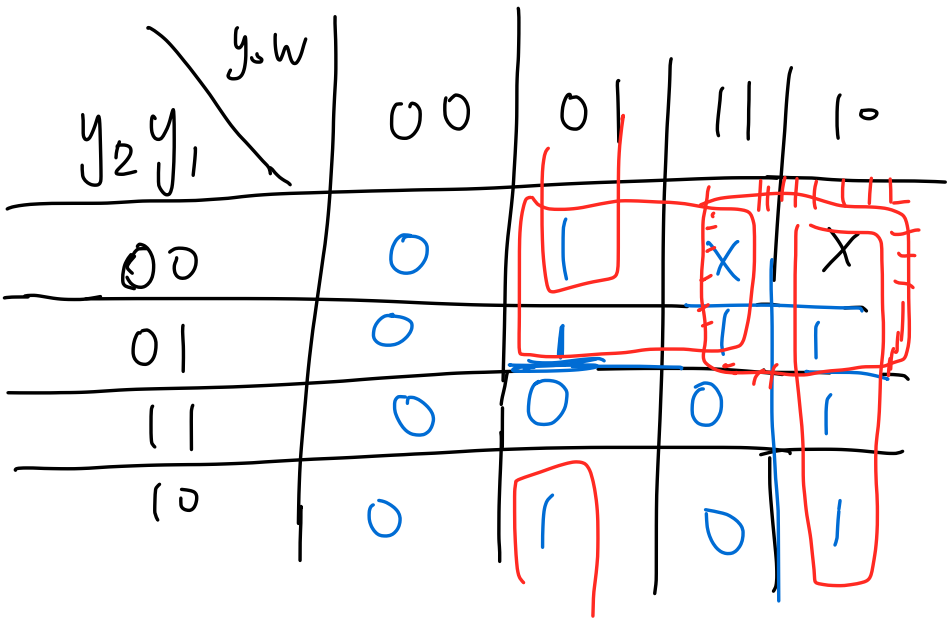


Y_0

$$Y_0 = y_0w + w\bar{y}_2y_1 + wy_2\bar{y}_1$$



Y_1

$$Y_1 = \bar{y}_0 \cdot w \cdot \bar{y}_1 + w \cdot \bar{y}_2 + \cancel{y_0\bar{y}_2} + y_0\bar{w}$$

Y_2

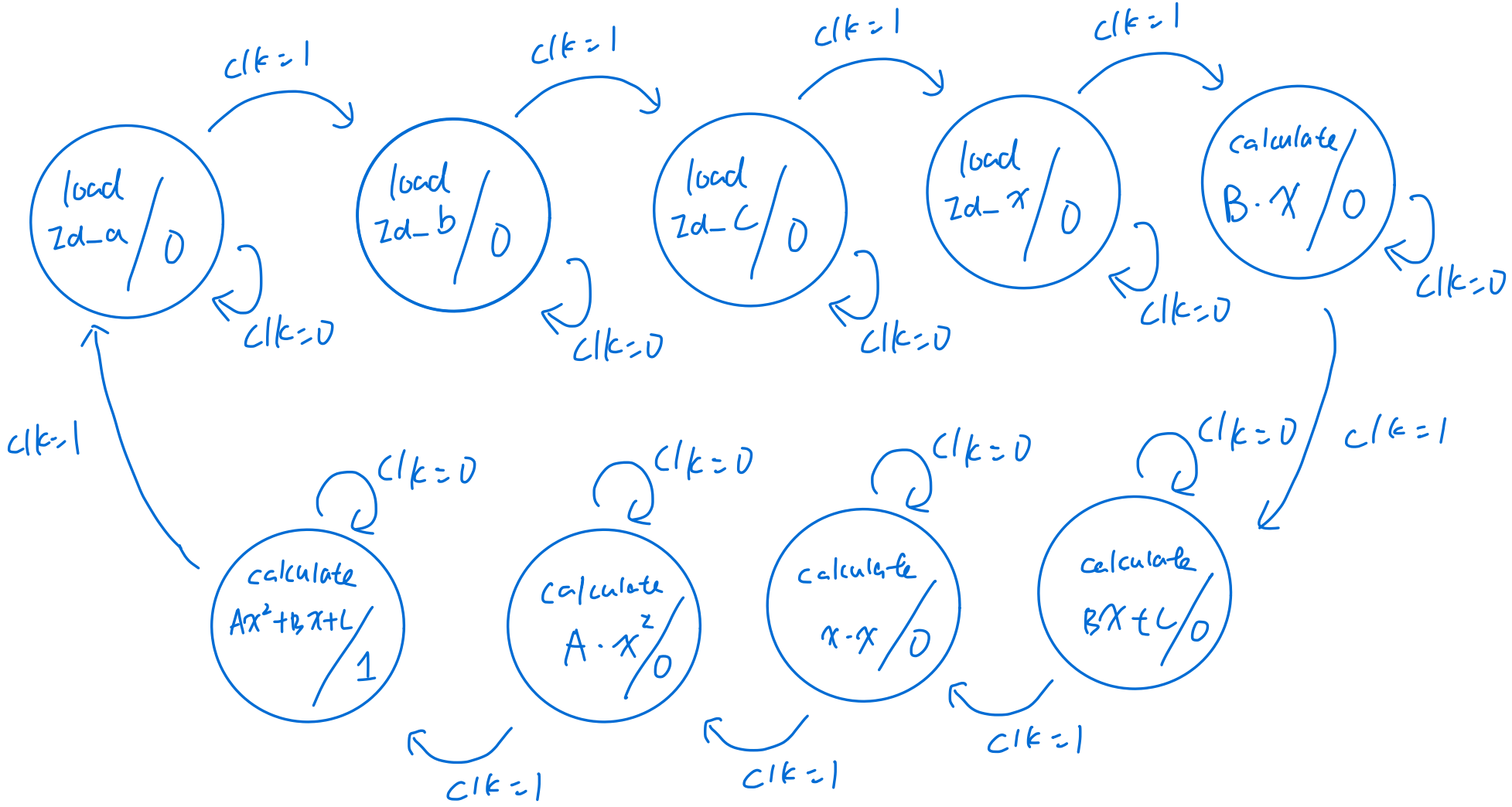
y_2y_1 \ y_0w	00	01	11	10
00	0	0	X	X
01	0	0	1	1
11	0	1	1	1
10	0	0	1	1

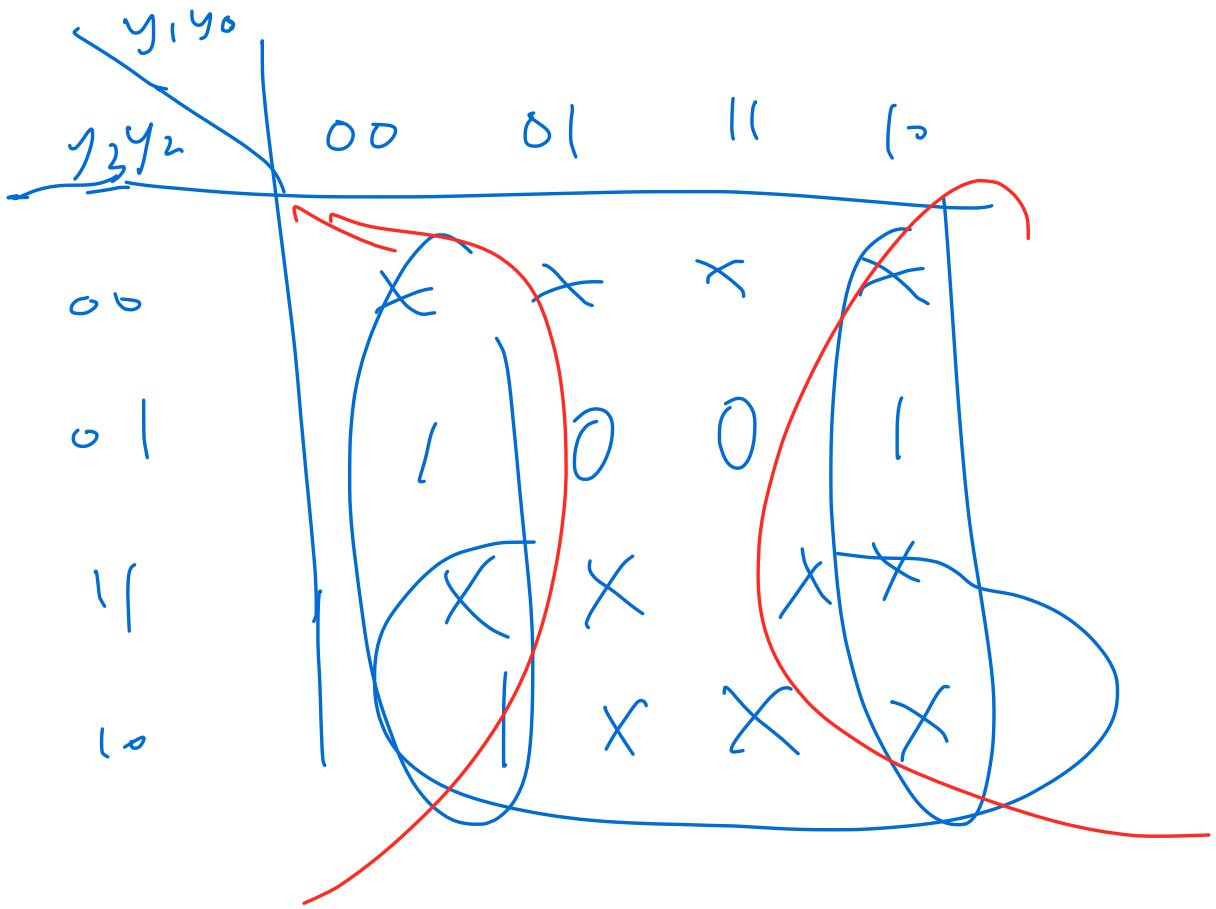
$Y_2 = y_0 + w y_2 y_1$

Z

y_2y_1 \ y_0w	00	01	11	10
00	0	0	X	X
01	0	0	0	
11	0	0	0	0
10	1	1	1	

$Z = y_2\bar{y_1}$


load
Id_a / 0
clk=1
clk=0
load
Id_b / 0
clk=1
clk=0
load
Id_C / 0
clk=1
clk=0
load
Id_x / 0
clk=1
clk=0
calculate
B·x / 0
clk=0
clk=1
calculate
Ax²+Bx+C / 1
clk=1
clk=0
calculate
A·x² / 0
clk=1
clk=0
calculate
x·x / 0
clk=1
clk=0
calculate
Bx+C / 0
clk=0

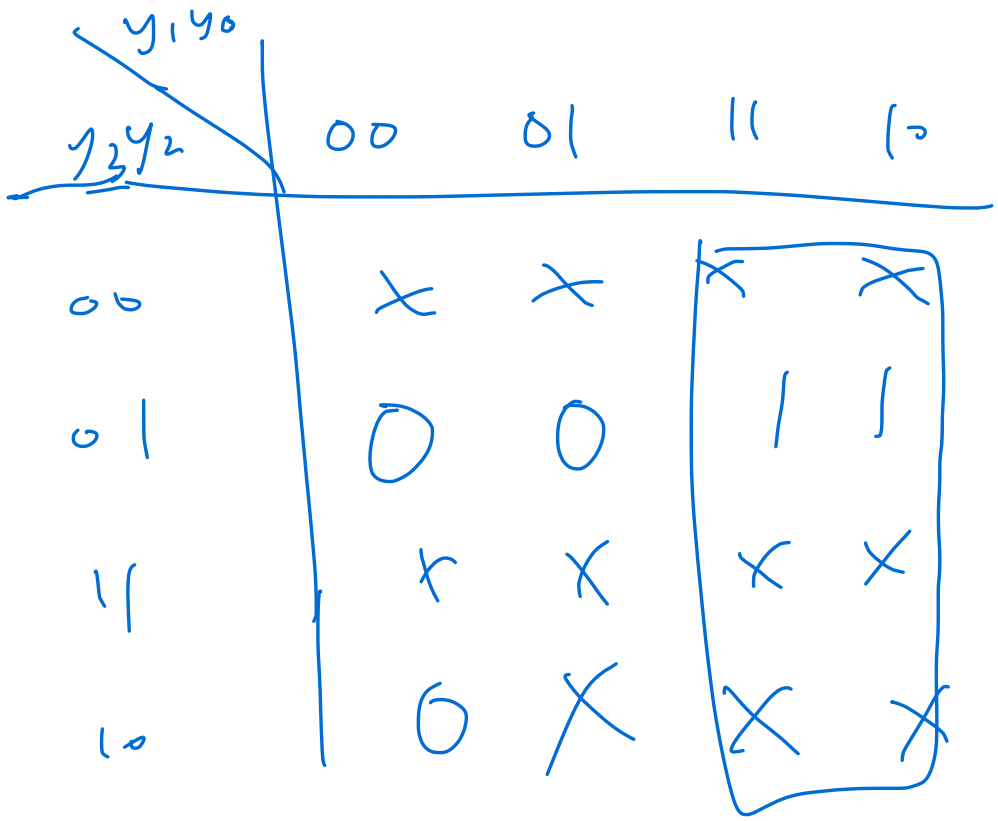


$$\overline{y_3}\,\overline{y_0} + y_1\overline{y_0} + y_3$$

select_a

y_1y_0

F_2

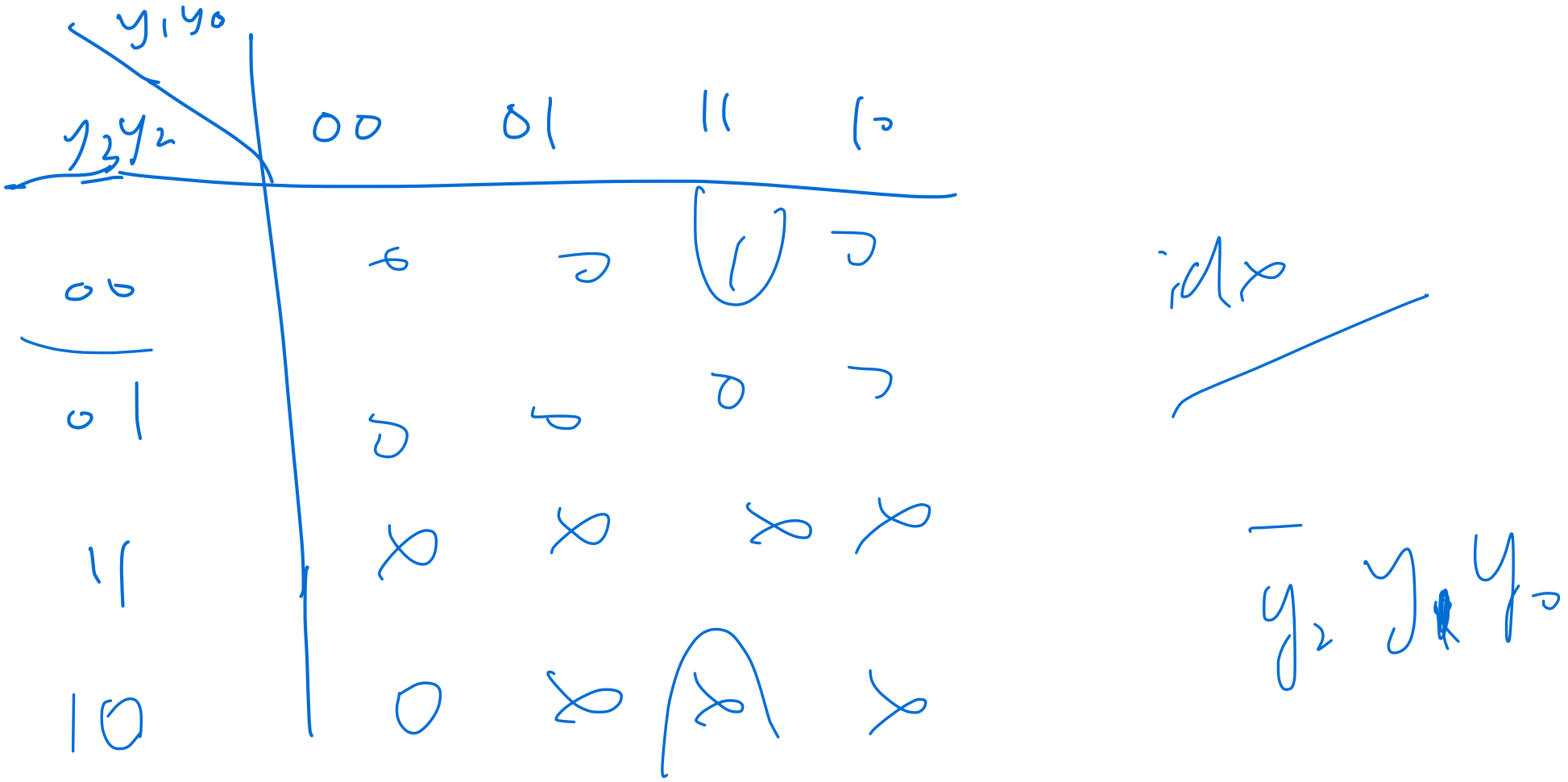


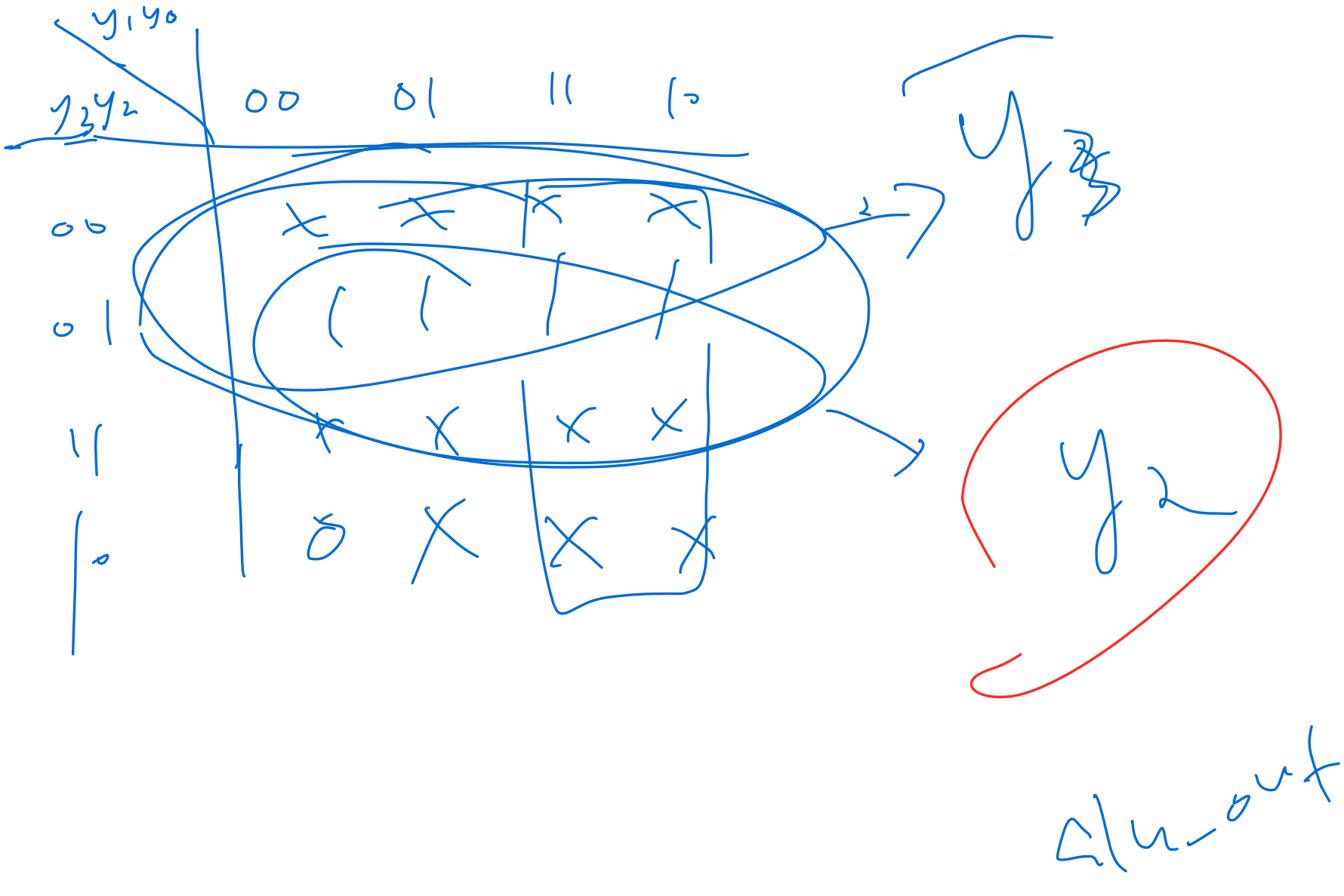
y_1

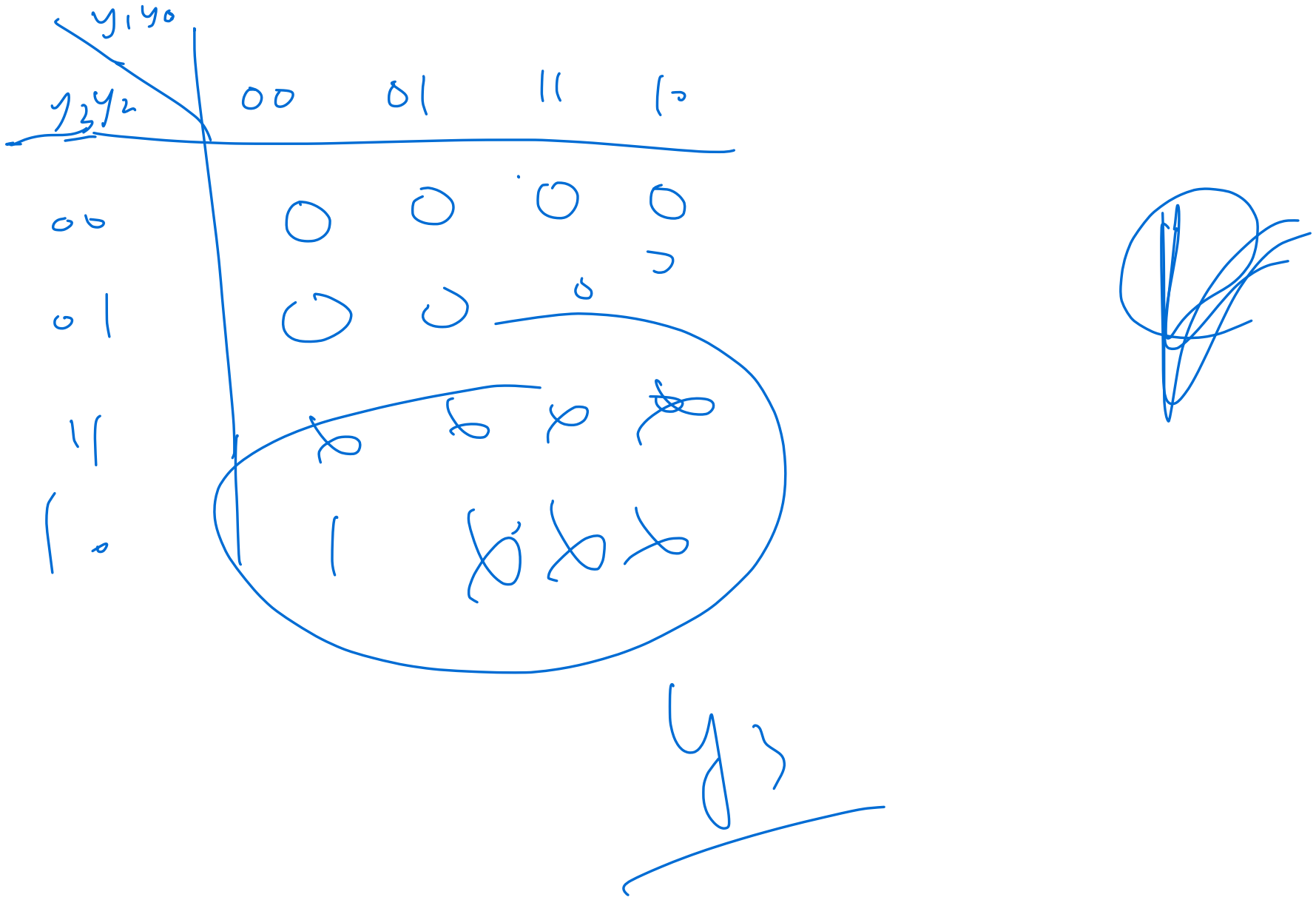
select_a

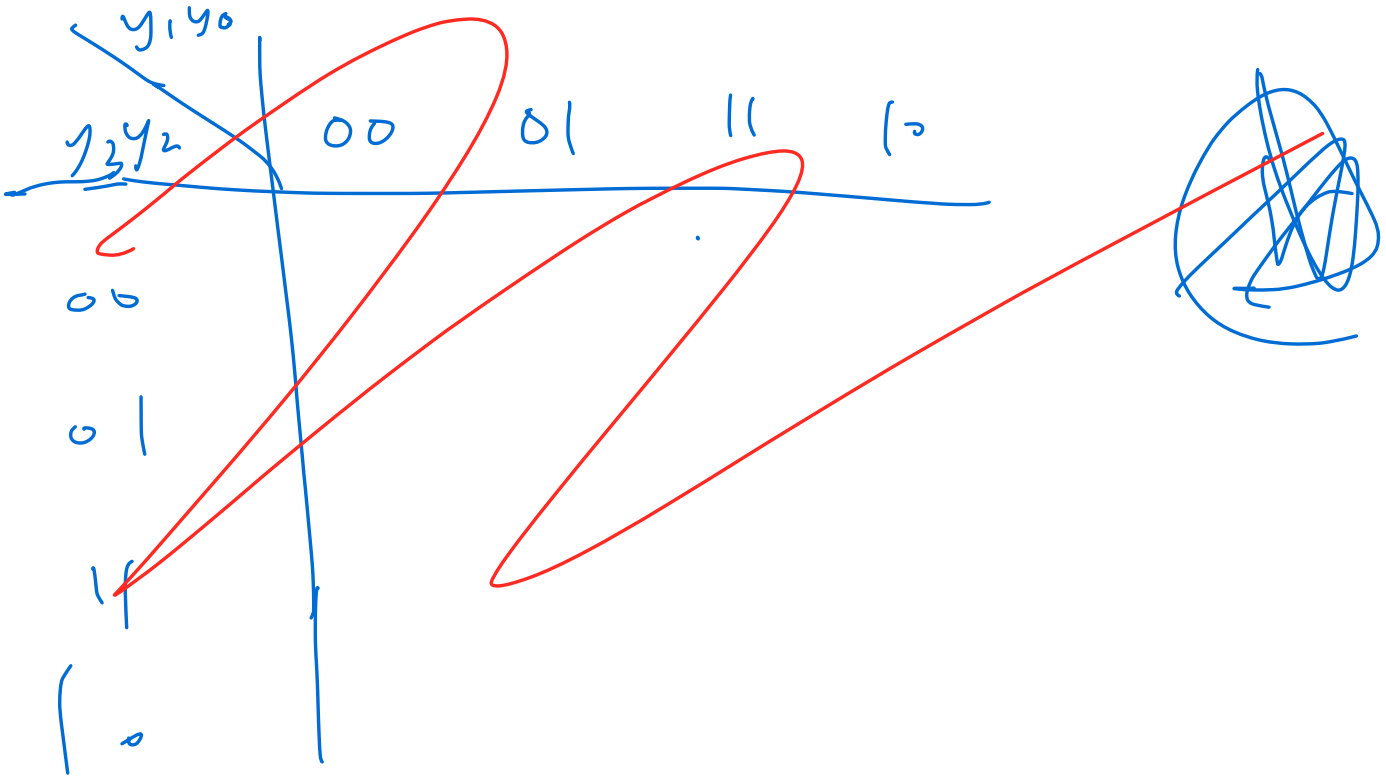
y_1 y_0

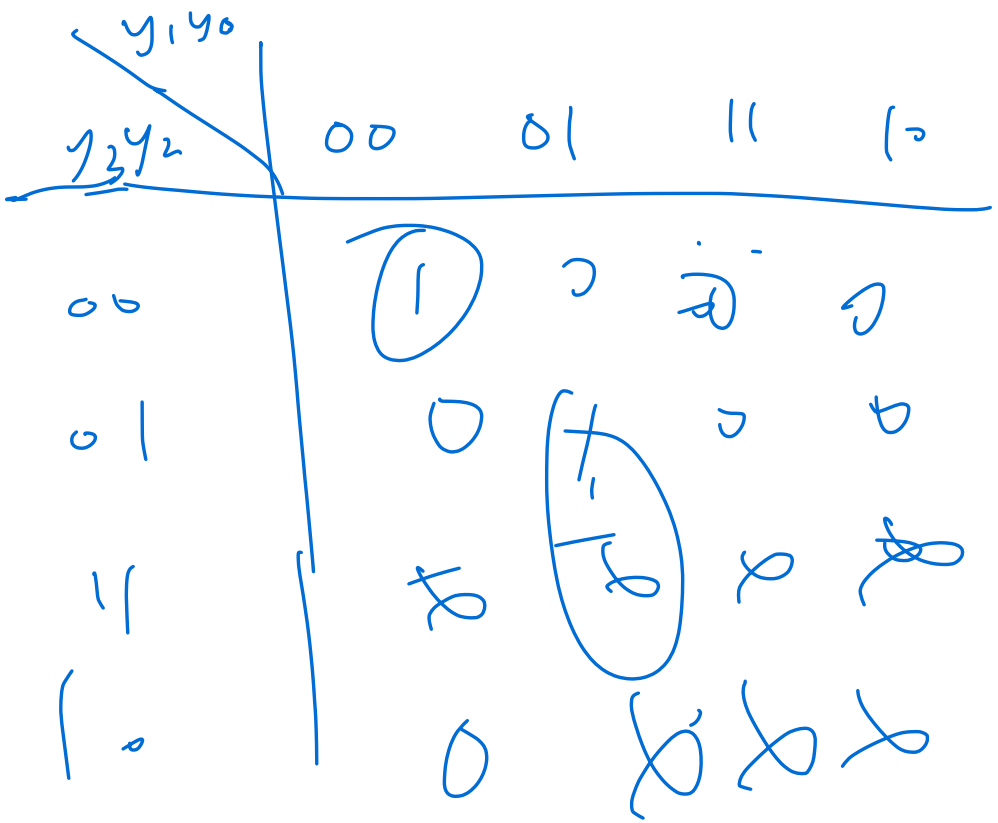
y_1


y_1y_0
y_3y_2
00
01
11
10
00
01
11
10
y_2 y_1 y_0

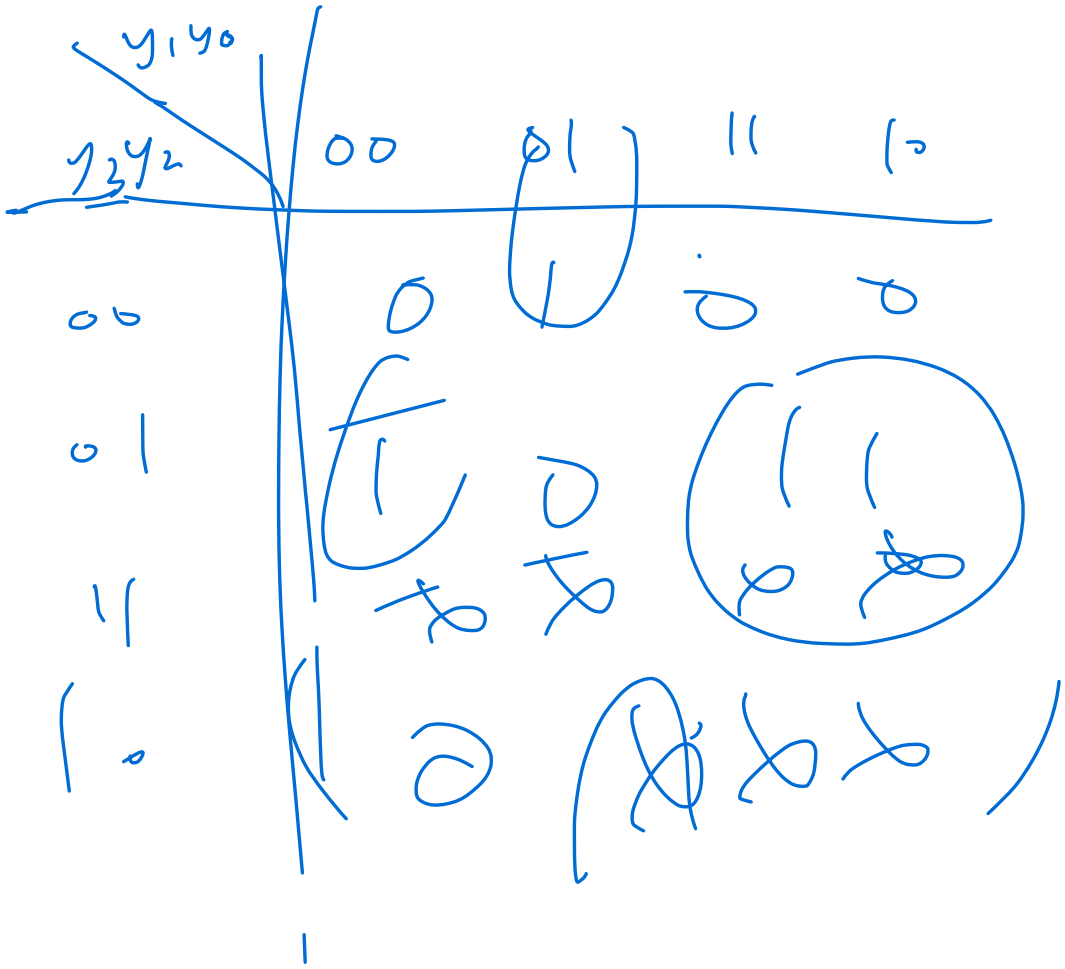

y1y0
y3y2
00
01
11
10
00
01
11
10
y3
y2
ALU-out



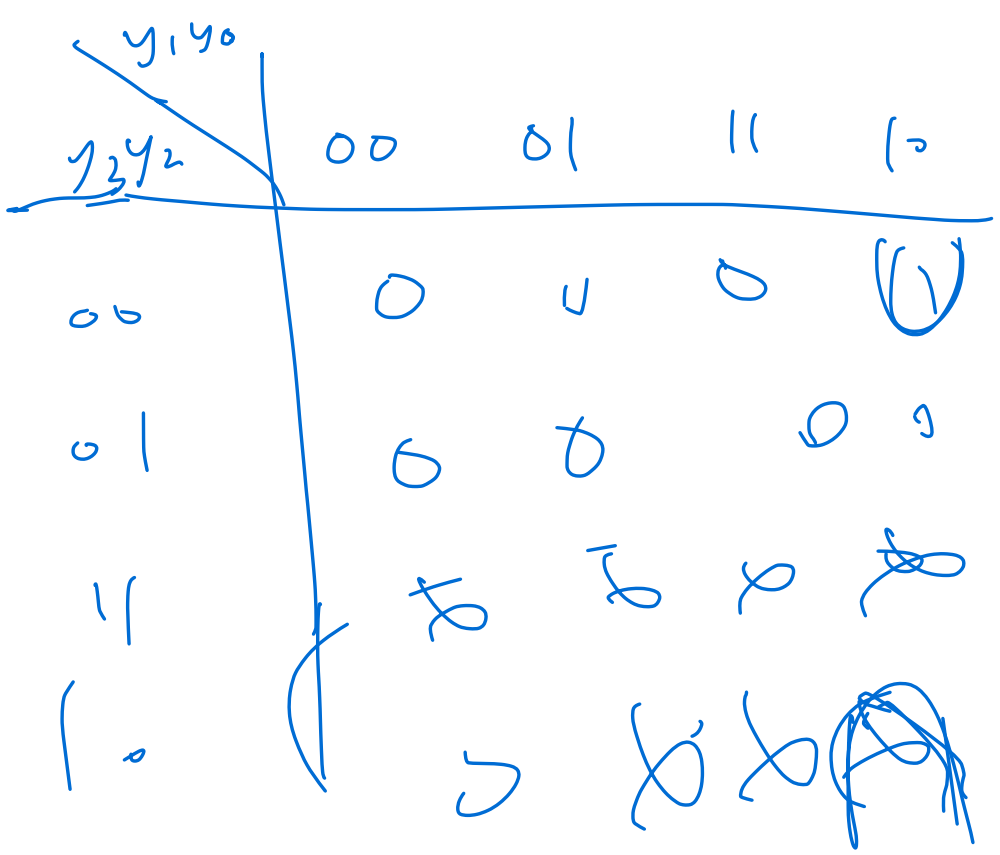

y_1y_0
y_3y_2
00
01
11
10
00
01
10



$\overline{y_3y_2y_1y_0} + y_2\bar{y}_1y_0$

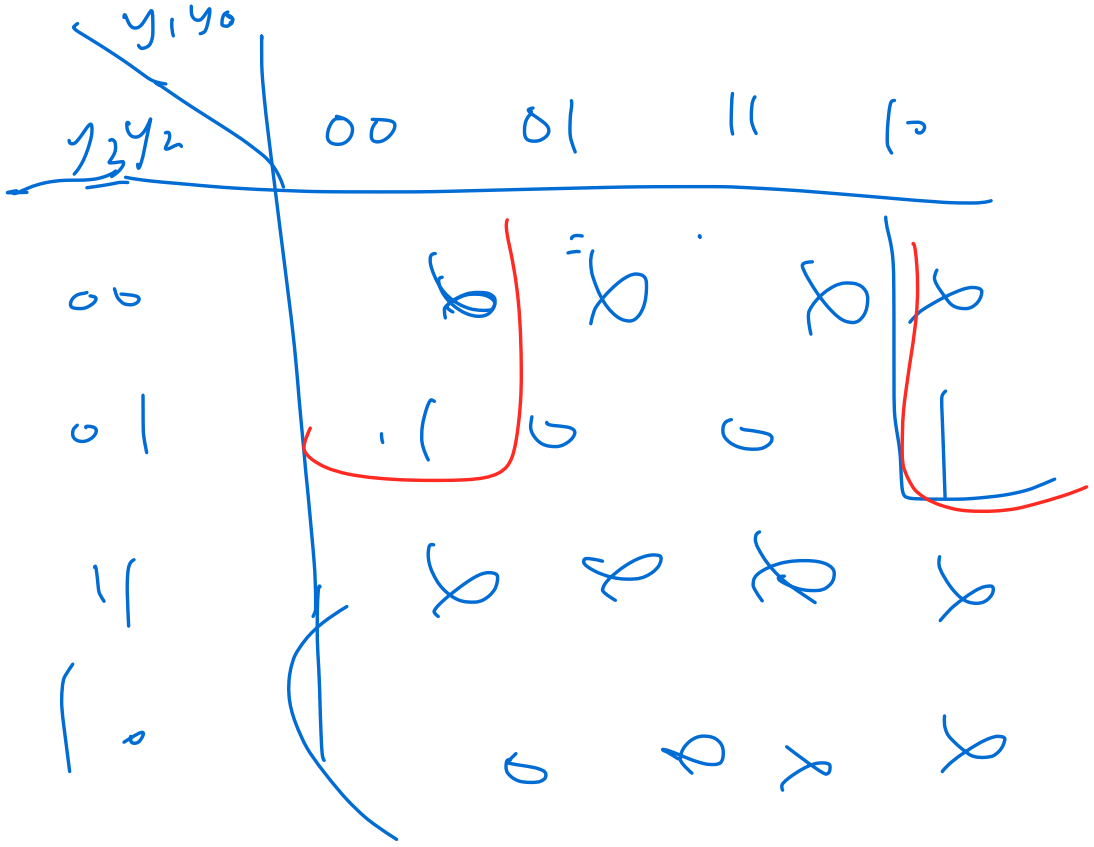


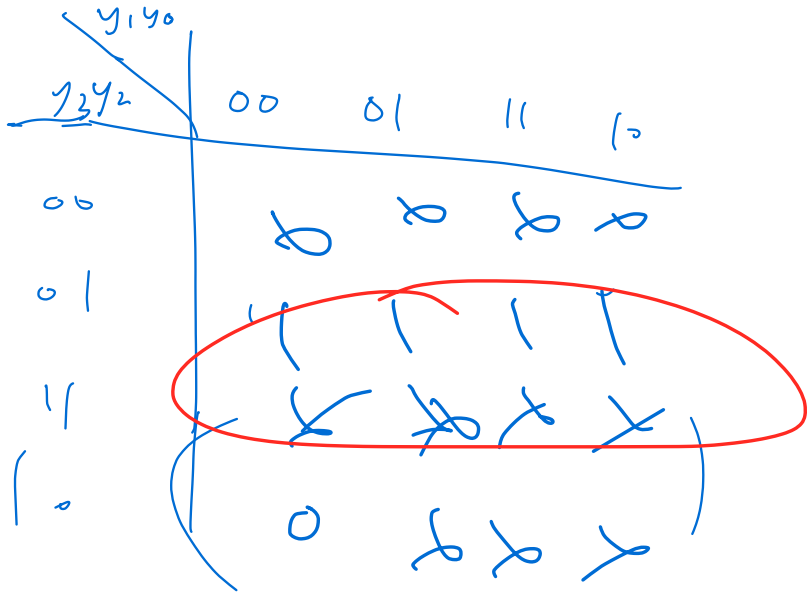
$$\bar{y}_2\bar{y}_1y_0 + y_2\bar{y}_0 + y_2y_0$$



C

$\bar{y}_2 y_1 \bar{y}_0$



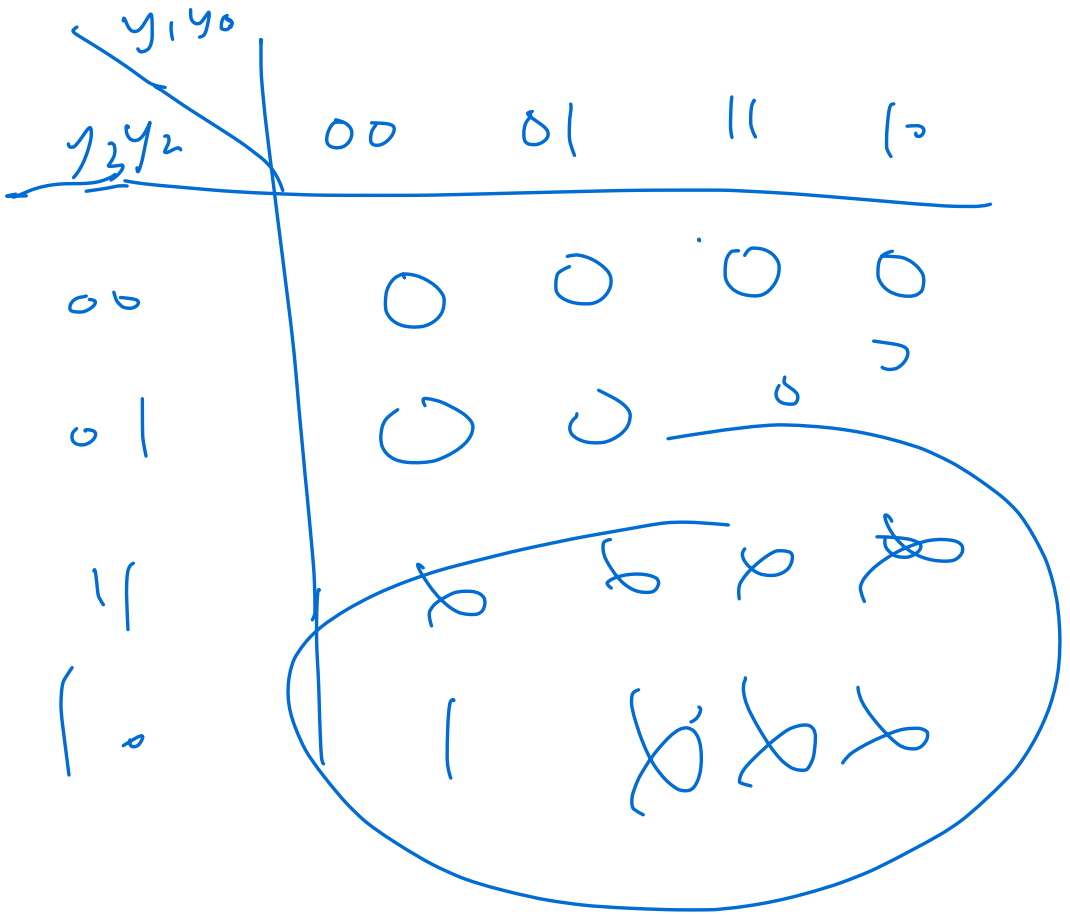


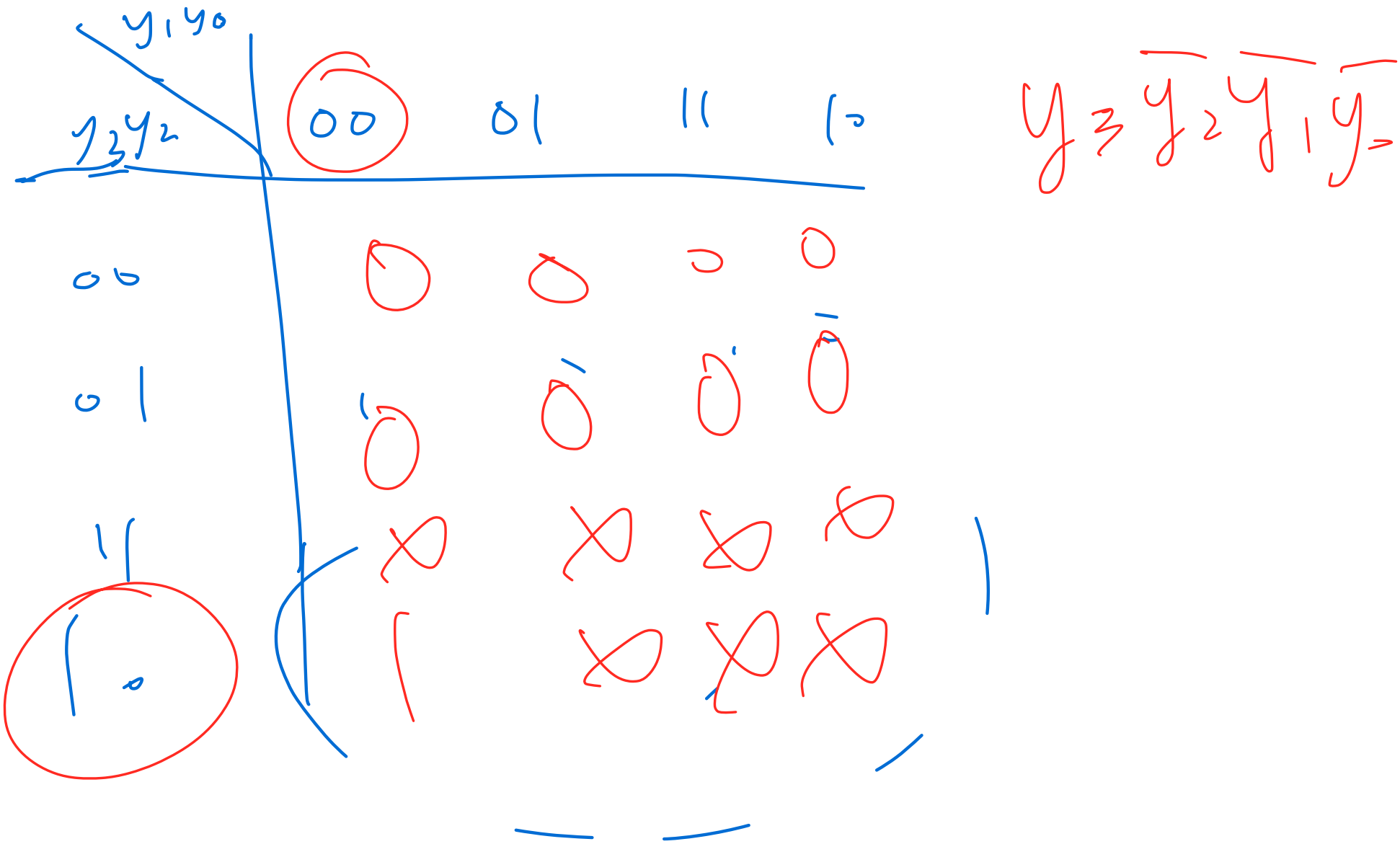
y_3y_2 \ y_1y_0	00	01	11	10
00	x	x	x	x
01	1	0	0	1
11	x	x	x	x
10	0	x	x	x

y_3y_2 \ y_1y_0	00	01	11	10
00	x	x	x	x
01	1	1	1	1
11	x	x	x	x
10	0	x	x	x

$\overline{y_3y_0}$ sector B Y_0 y_2

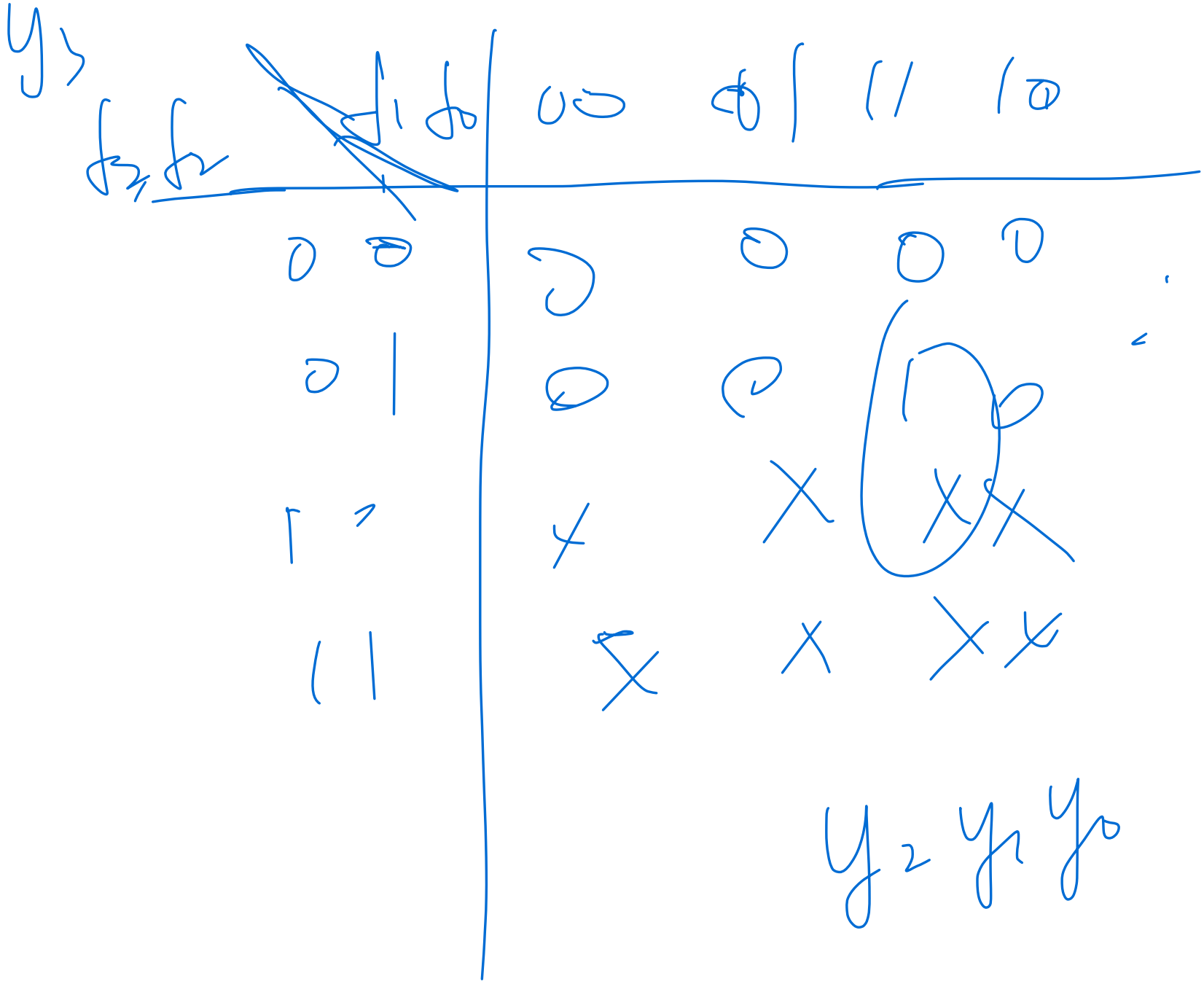
Y_1 y_3

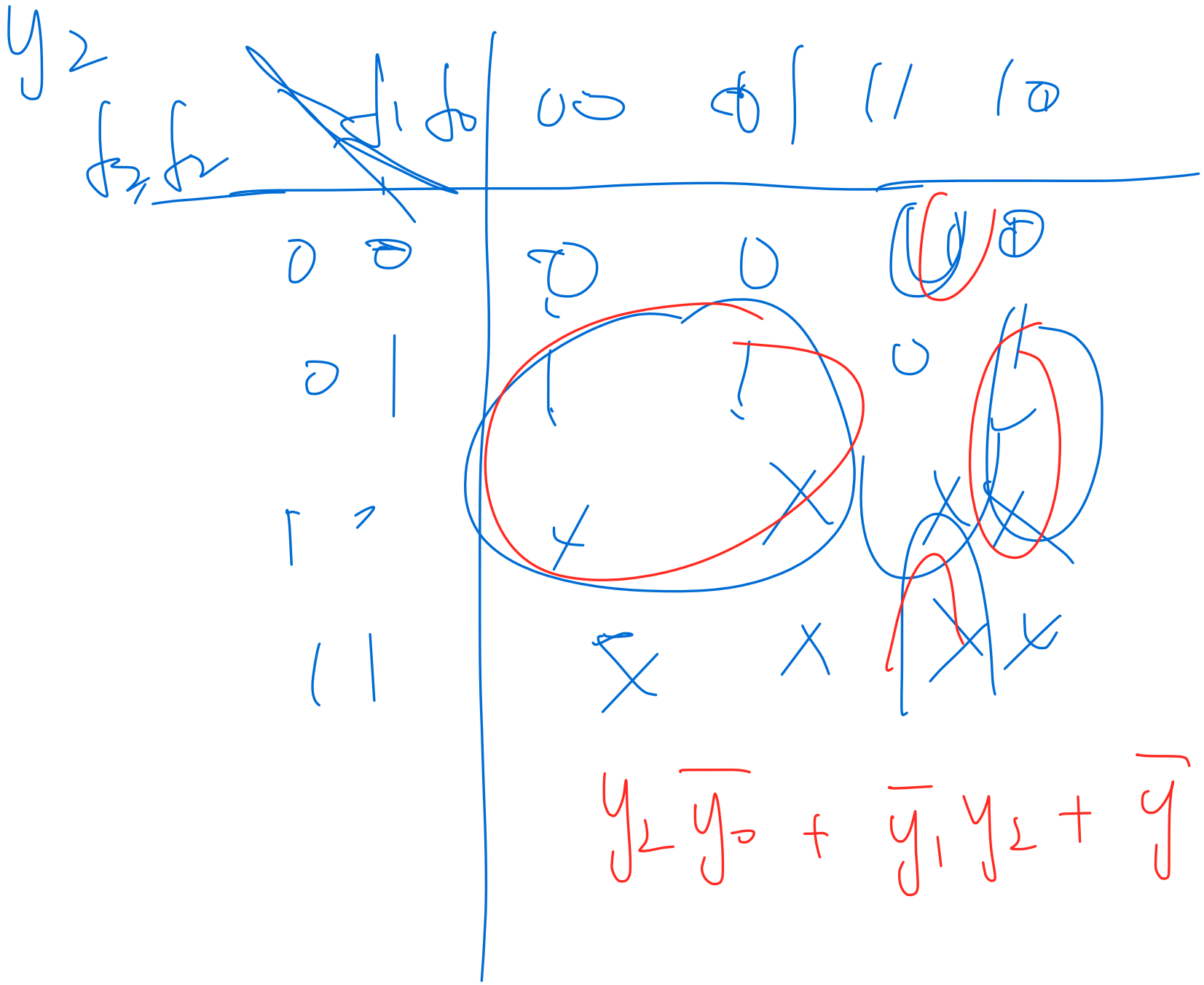

y_1y_0
y_3y_2
00
01
11
10
00
01
11
10


y_1y_0
y_3y_2
00
01
11
10
00
01
11
10
$Y = \bar{y}_3\bar{y}_2\bar{y}_1\bar{y}_0$

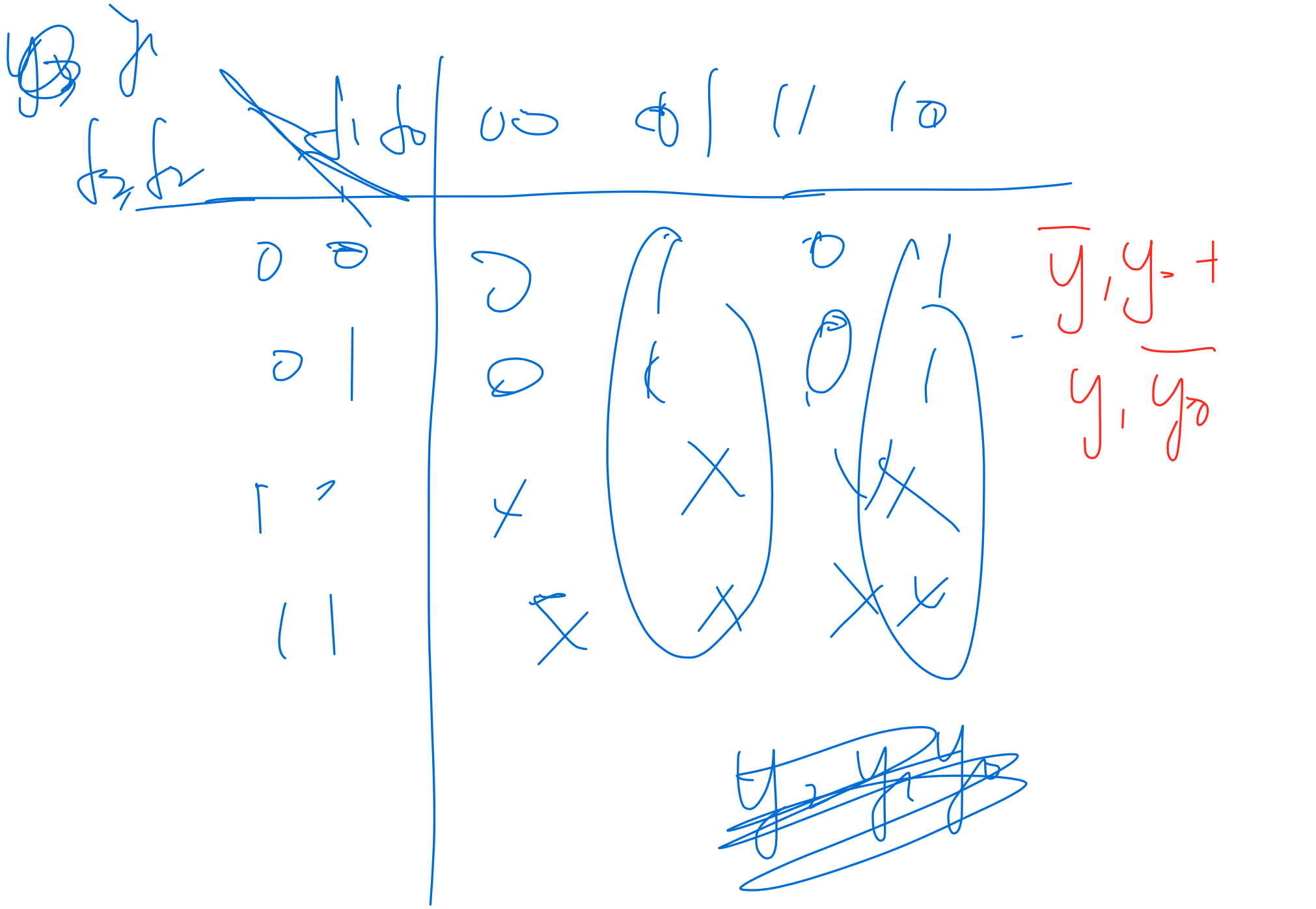
y_3	y_2	y_1	y_0	z_3	z_2	y_1	y_0
0	0	0	0	0	0	0	1
0	0	0	1	0	0	1	0
0	0	1	0	0	0	1	1
0	0	1	1	0	1	0	0
0	1	0	0	0	1	0	1
0	1	0	1	0	1	1	0
0	1	1	0	0	1	1	1
0	1	1	1	1	0	0	0
1	0	0	0	0	0	0	0

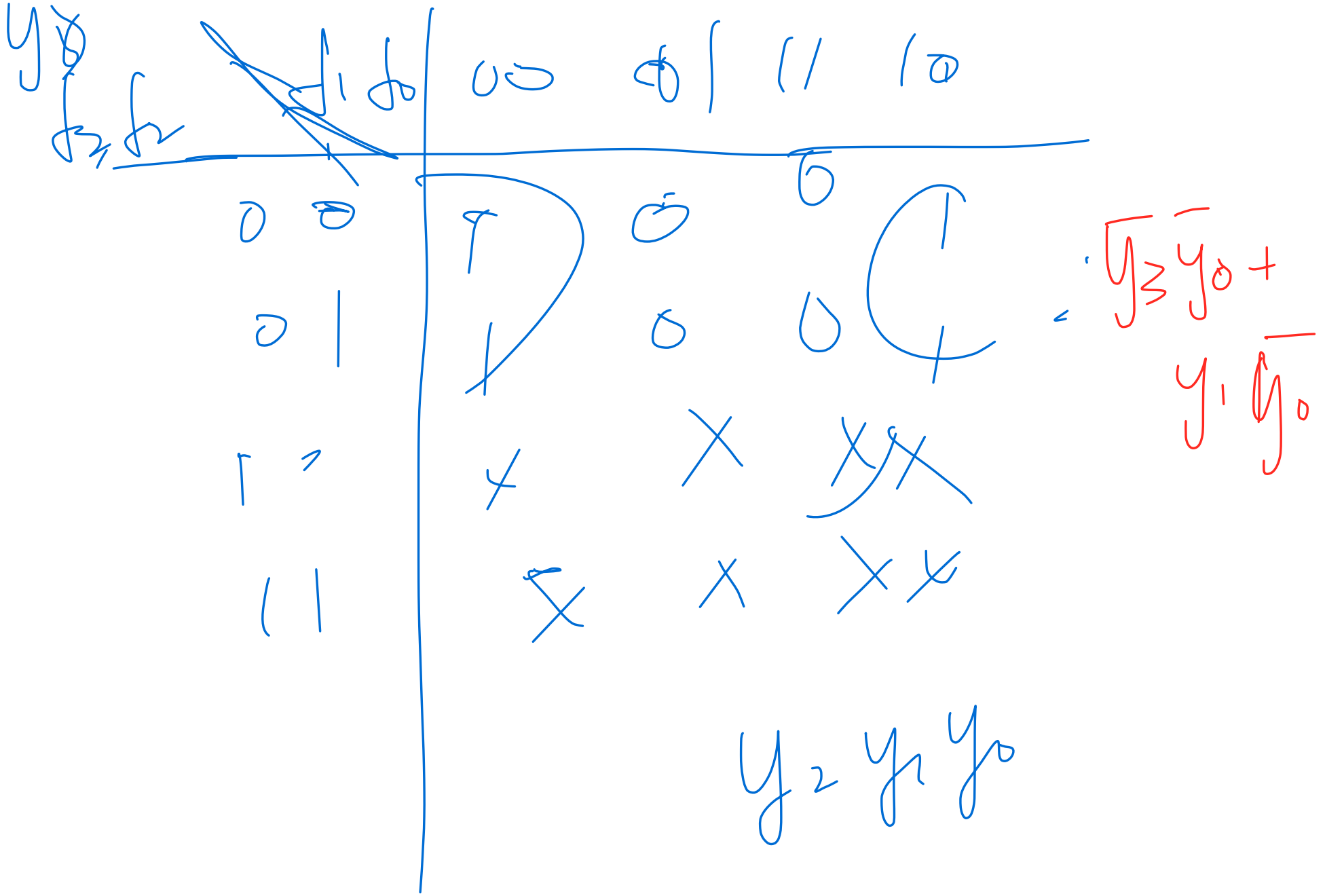
y_3	y_2	y_1	y_0	z_3	z_2	y_1	y_0
0	0	0	0	0	0	0	1
0	0	0	1	0	0	1	0
0	0	1	0	0	0	1	1
0	0	1	1	0	1	0	0
0	1	0	0	0	1	0	1
0	1	0	1	0	1	1	0
0	1	1	0	0	1	1	1
0	1	1	1	1	0	0	0
1	0	0	0	0	0	0	0





$$y_2\overline{y_0} + \overline{y_1}y_2 + \overline{y_2}y_1y_0$$





$$Cx^2 + Bx + A$$

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