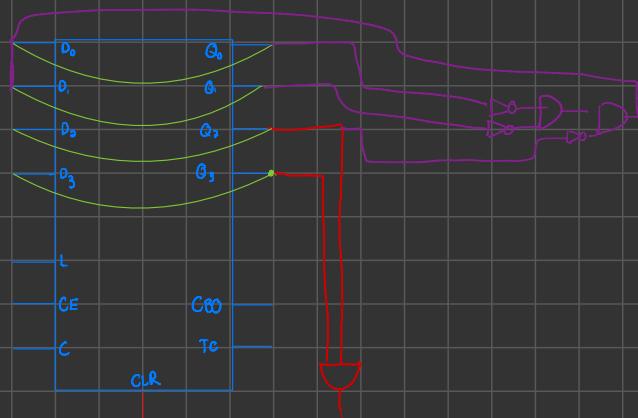


Question 3

32 16 8 4 2 1
00 11 11 00
11 00



Question 4:

	O	I
000	A	$\overline{Q_0} \oplus Q_1$
001	B	$\overline{Q_0} \oplus Q_1$
010	C	$\overline{Q_0} \oplus Q_1$
011	D	$\overline{Q_0} \oplus Q_1$
100	E	$\overline{Q_0} \oplus Q_1$
101	F	$\overline{Q_0} \oplus Q_1$
110	G	$\overline{Q_0} \oplus Q_1$
111	H	$\overline{Q_0} \oplus Q_1$

		Q_2^*							
		000	001	011	010	110	111	101	100
	x	0	0	0	0	0	0	0	d
	x	1	0	0	0	1	1	1	d
		Q_1^*							
		000	001	011	010	110	111	101	100
	x	0	0	0	1	1	0	0	d
	x	1	1	1	1	1	0	1	d
		Q_0^*							
		000	001	011	010	110	111	101	100
	x	0	1	0	0	0	1	0	d
	x	1	1	1	1	0	1	1	d

$$Q_2^* = x$$

$$Q_1^* = \overline{Q}_2 x + \overline{Q}_2 Q_1 + Q_1 \overline{Q}_2 x + Q_2 \overline{Q}_1 x$$

$$Q_0^* = \overline{Q}_2 \overline{Q}_1 \overline{Q}_0 + \overline{Q}_2 Q_0 x + Q_2 \overline{Q}_1 x + Q_2 Q_0 x$$

Rappel

binary	0 1	$\{0 \dots 1\}$
octal	000 001	$\{0 \dots 7\}$
hexa	0000 0001	$\{0 \dots F\}$

$$\text{Signed} \quad 10000111 = -121 \quad (-128 + 1+2+4)$$

$$\text{Unsigned} \quad 10000111 = 135 \quad (128 + 1+2+4)$$

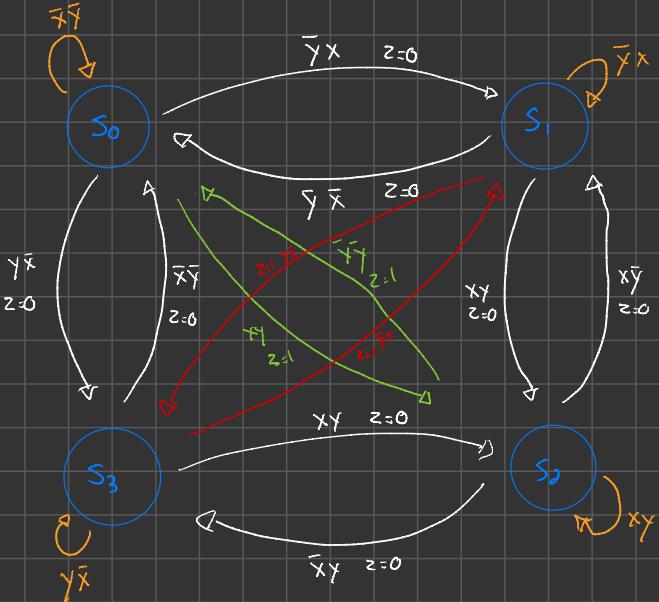
$$\{-128 \dots 127\}$$

$$\{0 \dots 255\}$$

onehot 00100 000100

thermo électrique 0011111 0000011

Question 5:

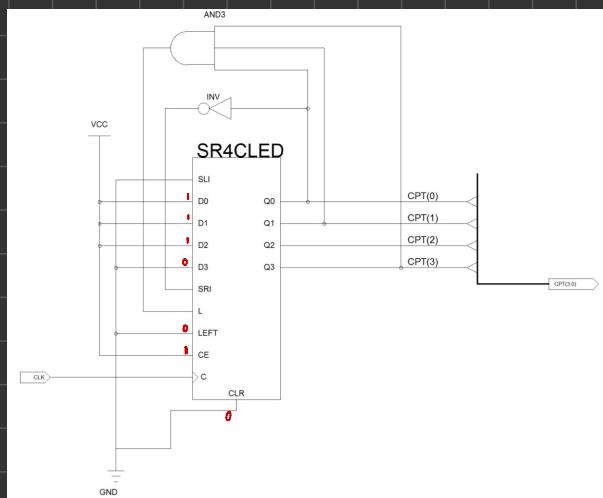


Question 6:

- 1) synchronie attend la clock, asynchrone n'attends pas la clock
- 2) asynchrone n'a aucune importance sur la clock, synchronie est avec clock
- 3) Chaque bulle est une ligne de la table

Question 7:

Données D_0, D_1, D_2, D_3



0	0	0	0	1	1	1	0
0	0	0	1	1	1	0	0
0	0	1	1	1	0	0	0
0	1	1	1	0	0	0	0
0	0	0	0	0	0	0	0

CPT(0) CPT(1) CPT(2) CPT(3)

CPT(0)

