A	B	C	D	S
0	0	0	0	0
0	0	0	1	1
0	0	1	0	0
0	0	1	1	1
0	1	0	0	0
0	1	0	1	1
0	1	1	0	1
0	1	1	1	0
1	0	0	0	0
1	0	0	1	1
1	0	1	0	1
1	0	1	1	0
1	1	0	0	1
1	1	0	1	0
1	1	1	0	0
1	1	1	1	1

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

$$S = \bar{A}\bar{B}\bar{C}D + \bar{A}\bar{B}CD + \bar{A}B\bar{C}D + \bar{A}B\bar{C}\bar{D} + \bar{A}BC\bar{D} + A\bar{B}\bar{C}D$$

$$+ \overline{A}\overline{B}C\overline{D} + AB\overline{C}\overline{D}$$
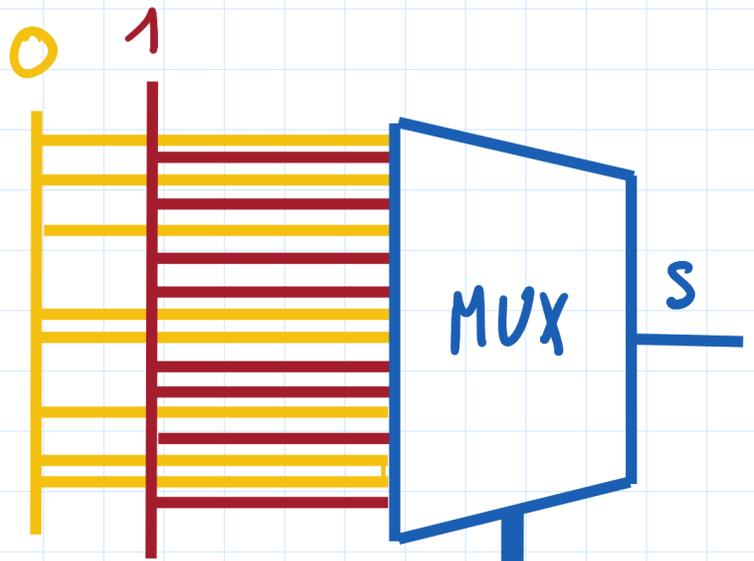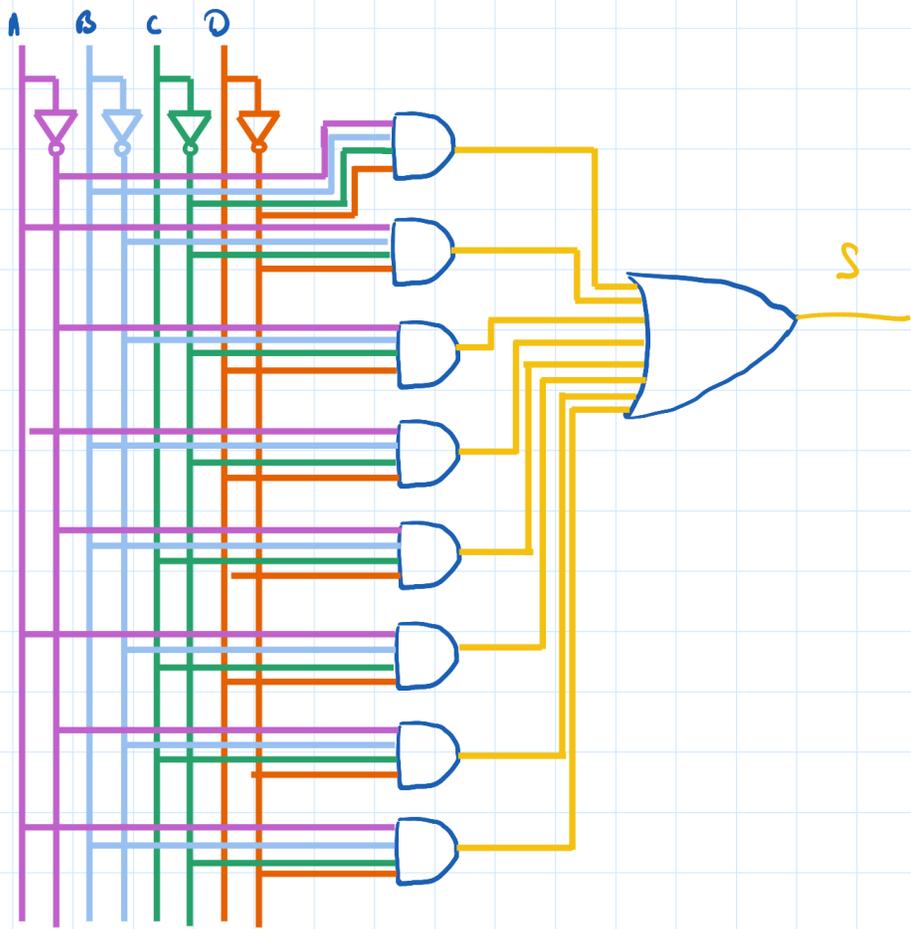
1. Comme on a $4 = 2^2$ bascules, il faut :

$\lfloor \log_2 (4-1) \rfloor = 2$ bascules D.

E	Q_1	Q_0	E_N	D_1	D_0	S_4	S_3	S_2	S_1	S_0
E_0	0	0	E_1	0	1	0	0	0	0	0
E_1	0	1	E_2	1	0	0	0	0	1	1
E_2	1	0	E_3	1	1	0	1	0	0	0
E_3	1	1	E_0	0	0	1	1	1	1	1

$$D_1 = Q_1 \oplus Q_0 \;;\; D_0 = \overline{Q_0}$$

$$S_4 = Q_1 Q_0 \;;\; S_3 = Q_1 \;;\; S_2 = Q_1 Q_0 \;;\; S_1 = Q_0 \;;\; S_0 = Q_0$$