

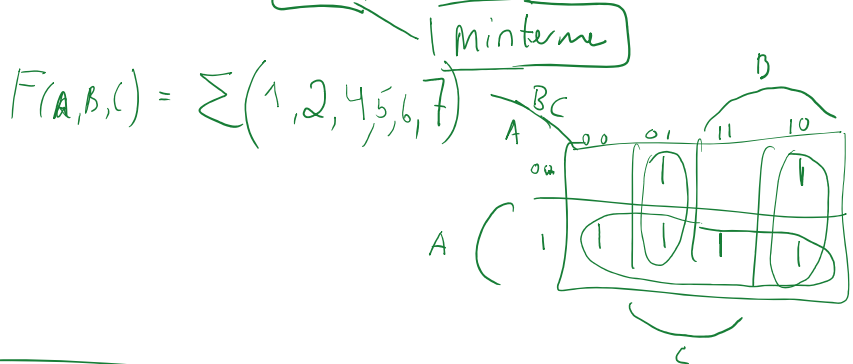
DeMorgan theorem.

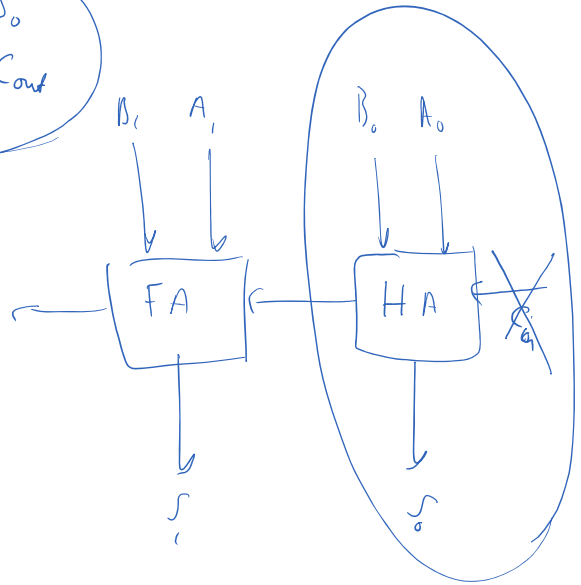
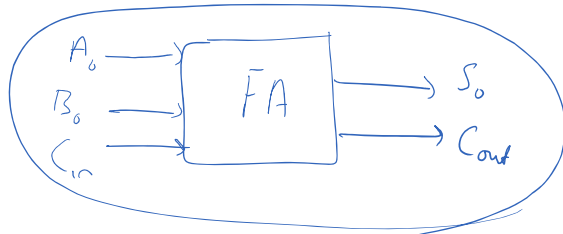
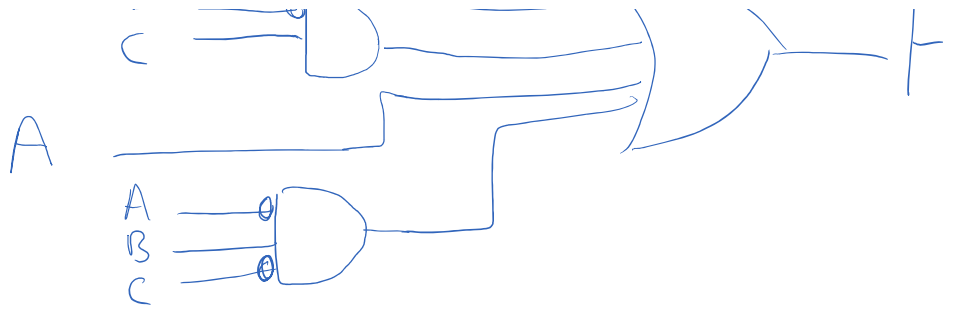
$$\overline{(A + B)} = A' \cdot B' = A' B'$$

$$F(A,B,C) = \overline{ABC} + \overline{BC} + A + \overline{ABC}$$

SOP

POS
SOP





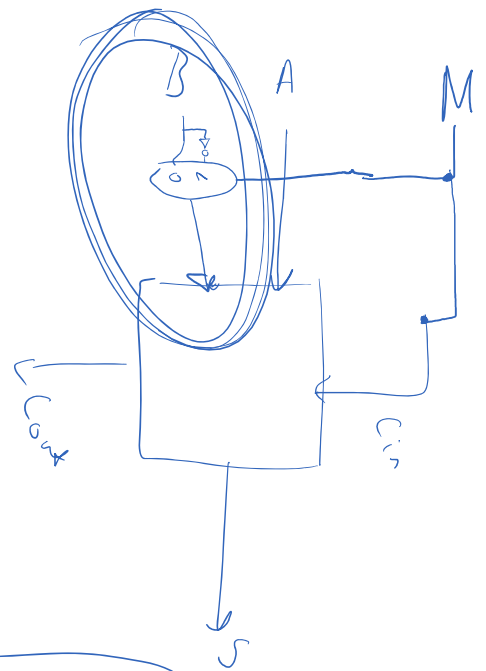
$$\begin{array}{r} 011 \\ + 100 \\ + 001 \\ \hline 101 \end{array}$$

↑
 $-2^2 + 2^0 = -4 + 1 = \underline{\underline{-3}}$

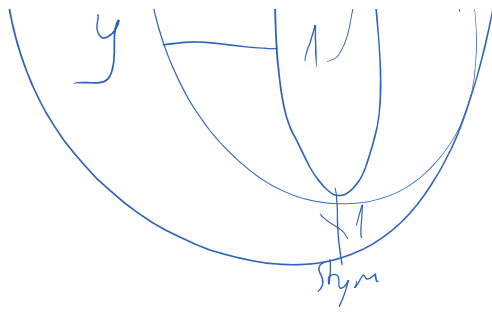
bitwise inverting
 address mod 4

$$5 - 3$$

$$5 + (-3)$$



Shannon's ...



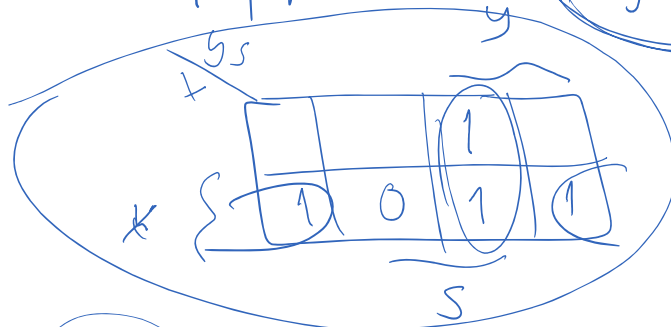
Styrereng	ut
0	x
1	y

x	y	s	ut.
0	0	0	0
0	0	1	0
0	1	0	0
0	1	1	1
1	0	0	1
1	0	1	0
1	1	0	1
1	1	1	1

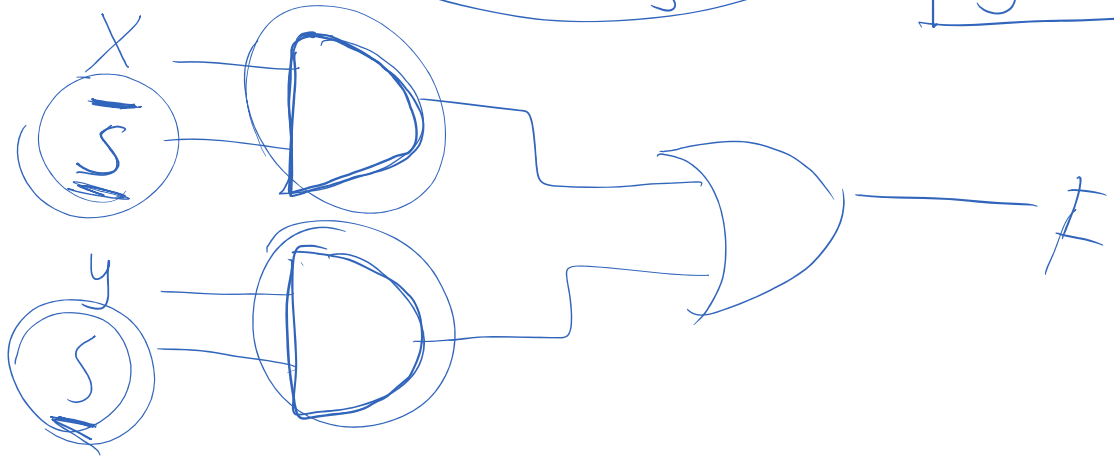
$$F = x'ys + xy\bar{s}$$

$$xys + xys$$

$$xy(s+\bar{s})$$

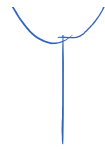
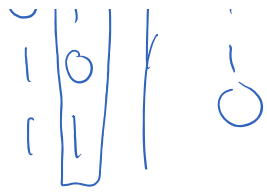


$$ys + x\bar{s}$$

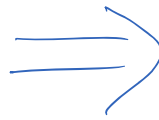


x	y	XOR
0	0	0
0	1	1
1	0	1
1	1	0



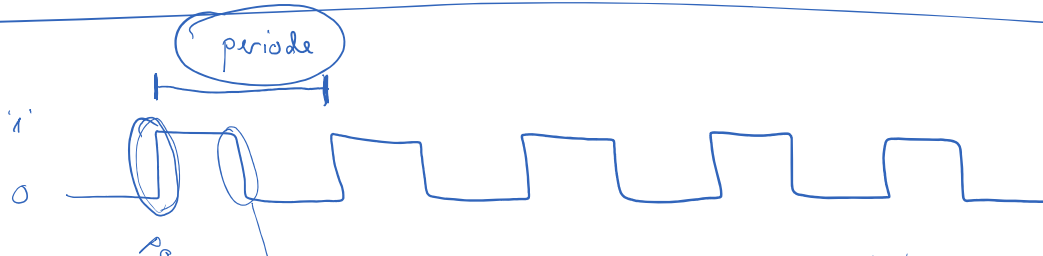
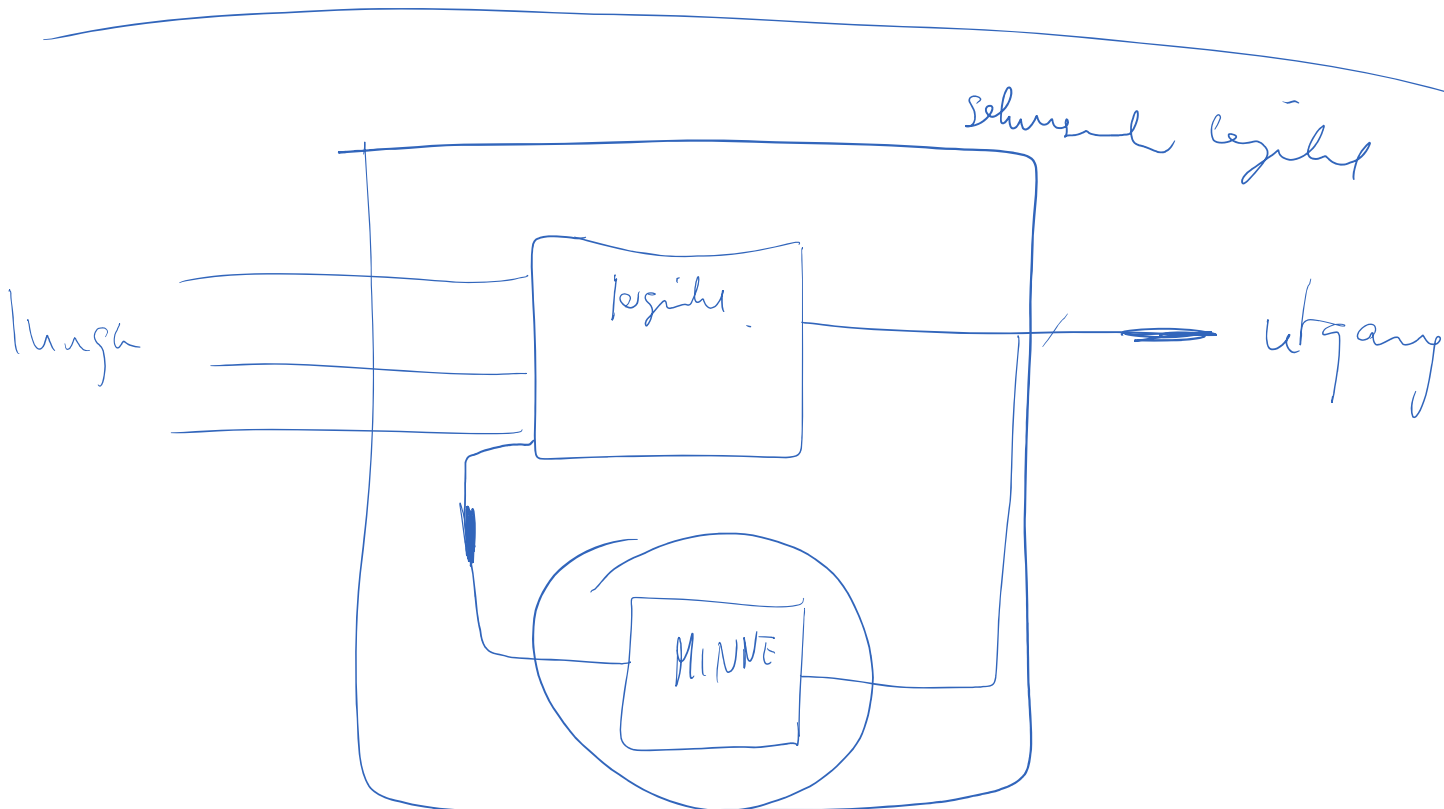


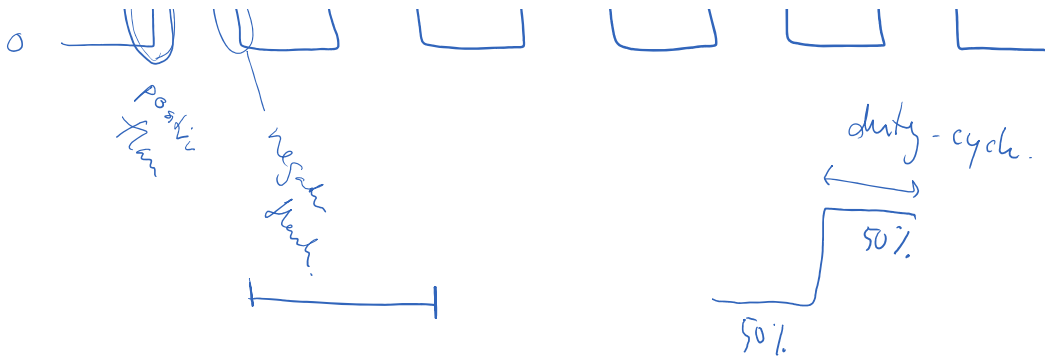
BM	XOR
00	0
01	1
10	1
11	0



MB	XOR
00	0
01	1
10	1
11	0

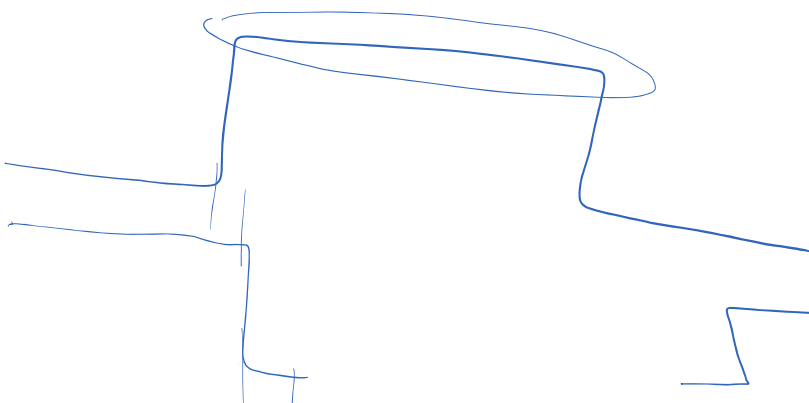
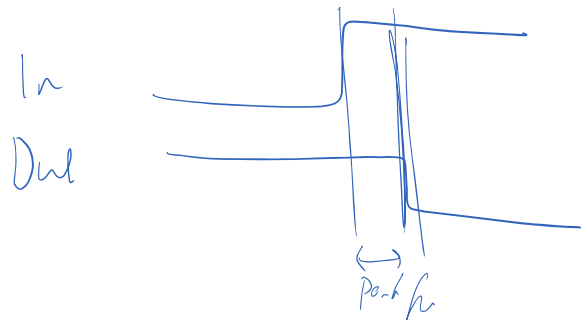
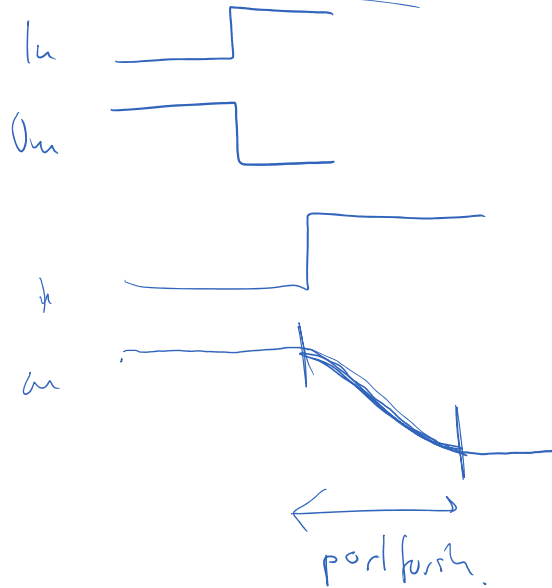
M	ut
0	B
1	\overline{B}

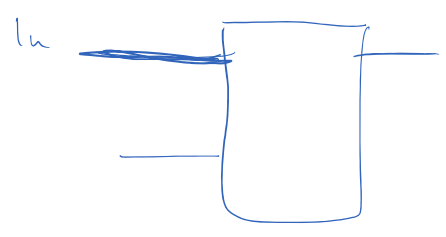
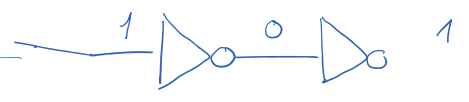
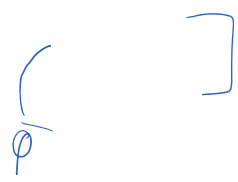
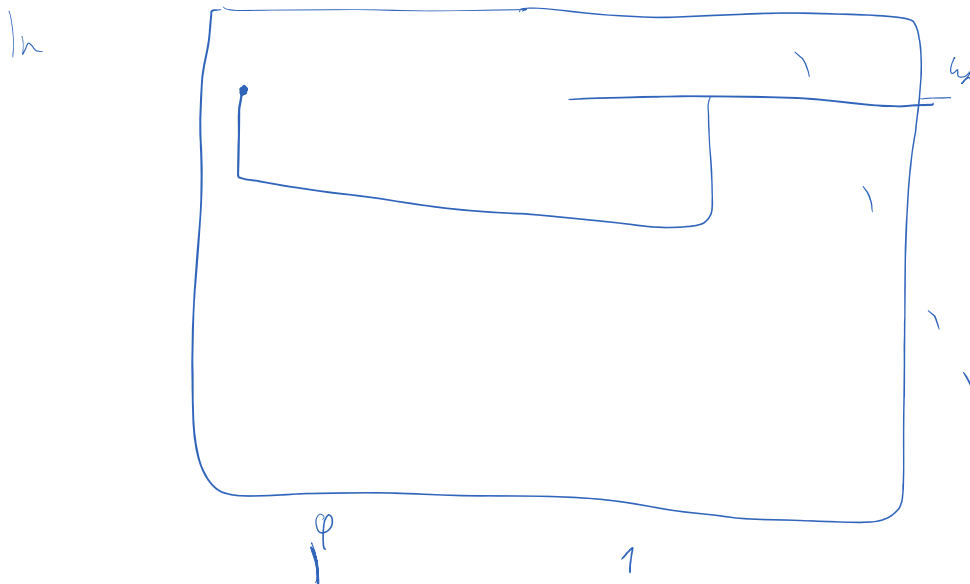
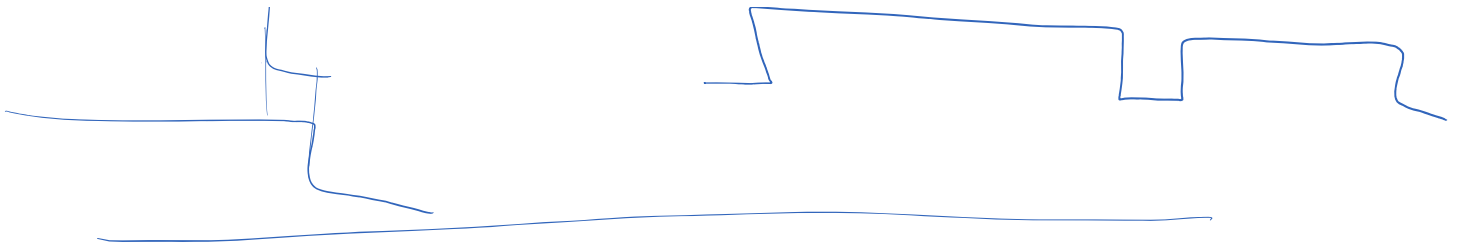




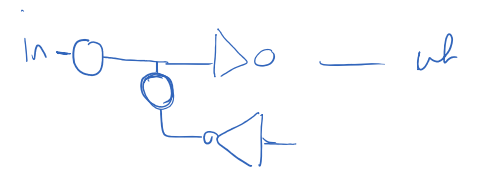
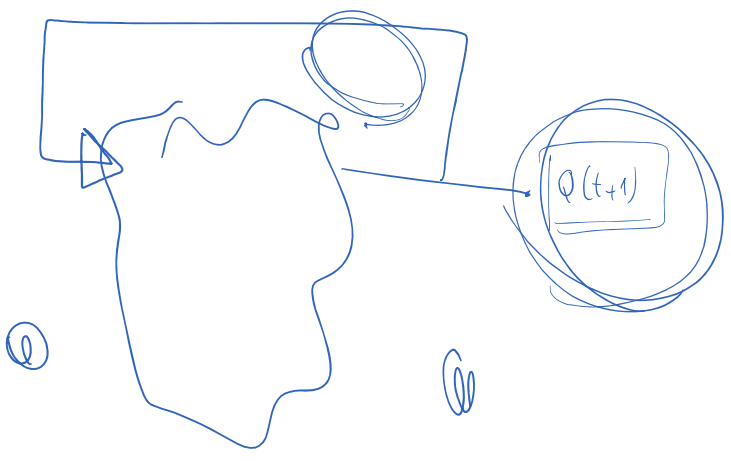
$$f = 1 \text{ GHz}$$

$$\text{periode} \sim \frac{1}{f} = \frac{1}{10^9} = 10^{-9} \text{ s}$$

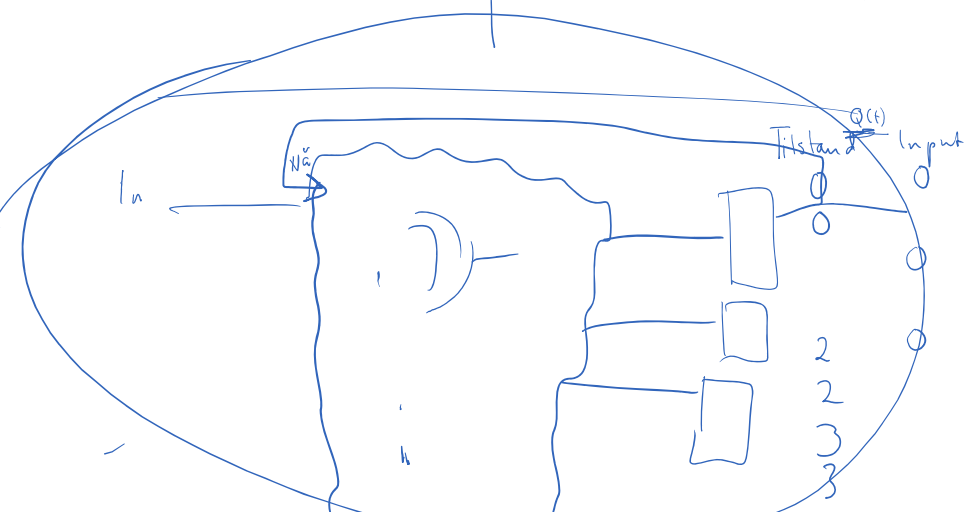
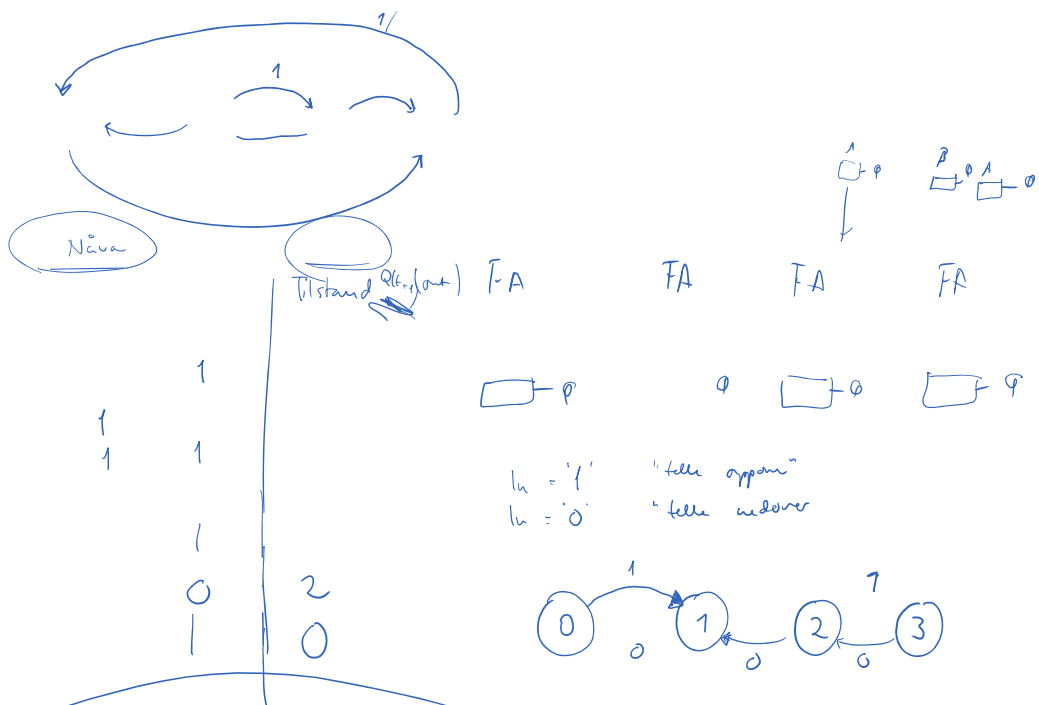
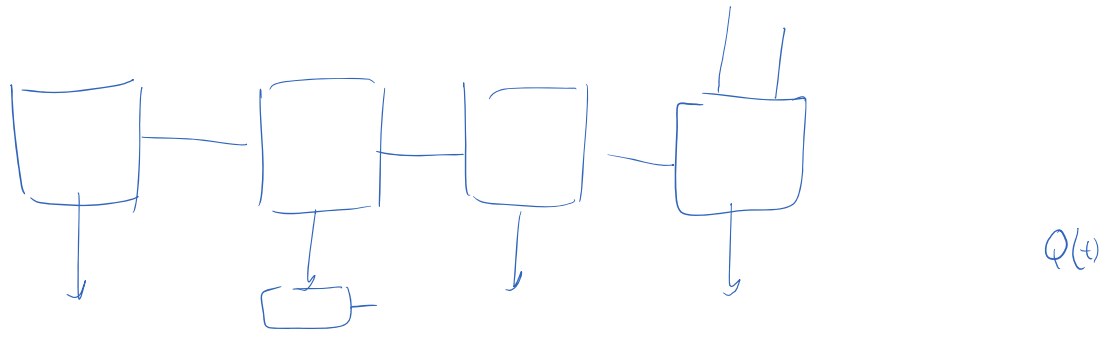
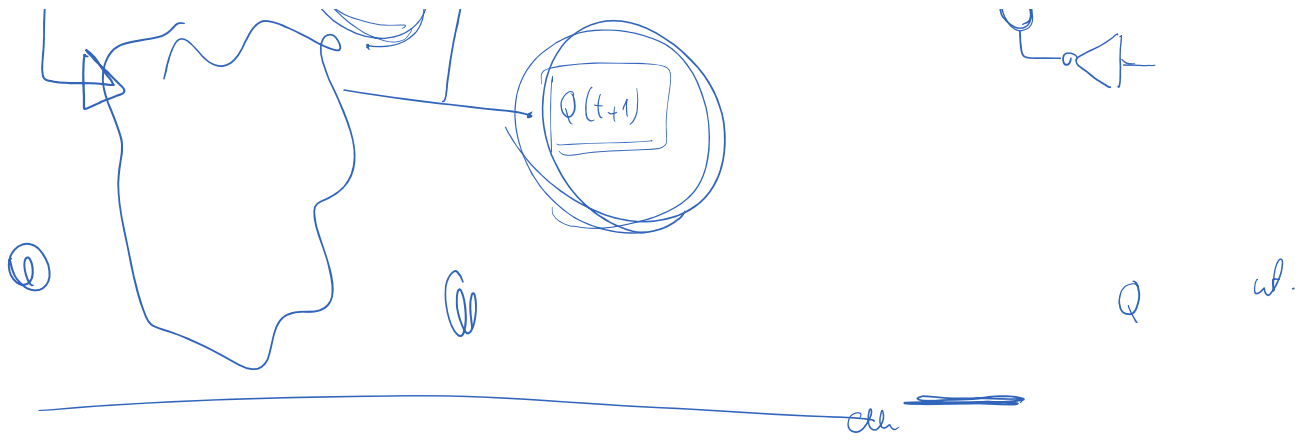




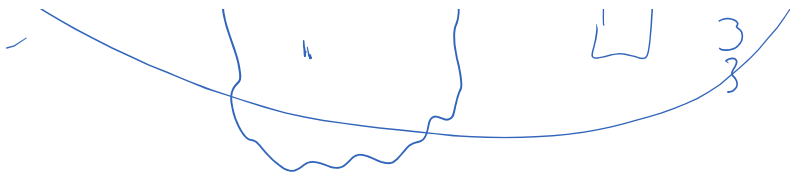
$Q(t)$
 $Q(t+1)$



Q w.



0 state
 3
 1
 0
 2
 1
 3
 N = ad minieren



Merke. →

2 = ← auf Höhe

