

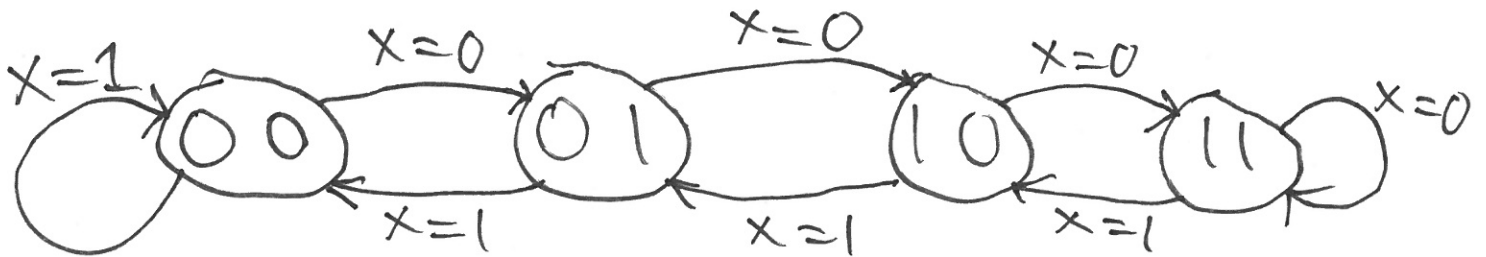
070113-3)

a)

X	Q ₁	Q ₂	T	D	Q ₁ ⁺	Q ₂ ⁺
0	0	0	0	1	0	1
0	0	1	1	1	1	1
0	1	0	0	0	1	0
0	1	1	0	0	1	0
1	0	0	0	0	0	0
1	0	1	0	0	0	0
1	1	0	0	1	1	1
1	1	1	1	1	0	1

Zustandsgraph:

Q₁ Q₂



b) Sannings tabell:

X	Q ₁	Q ₂	Q ₁ ⁺	Q ₂ ⁺	S ₁	R ₁	S ₂	R ₂
0	0	0	0	1	0	1	1	0
0	0	1	1	1	1	0	1	0
0	1	0	1	0	1	0	0	1
0	1	1	1	0	1	0	1	1
1	0	0	0	0	0	1	0	1
1	0	1	0	0	0	1	0	1
1	1	0	1	1	1	0	1	0
1	1	1	0	1	0	1	1	0

Karnaugh - diagram:

S₁:

	Q ₁ Q ₂			
X	00	01	11	10
0	0	1	-	-
1	0	0	0	-

$$S_1 = \bar{X} \cdot Q_2$$

R₁:

	Q ₁ Q ₂			
X	00	01	11	10
0	-	0	0	0
1	-	1	0	0

$$R_1 = X \cdot Q_2$$

S₂:

	Q ₁ Q ₂			
X	00	01	11	10
0	1	-	-	0
1	0	0	1	1

$$S_2 = \bar{X} \cdot \bar{Q}_1 + X \cdot Q_1$$

$$= \overline{X \oplus Q_1}$$

R₂:

	Q ₁ Q ₂			
X	00	01	11	10
0	0	0	1	1
1	1	1	0	0

$$R_2 = \bar{X} \cdot Q_1 + X \cdot \bar{Q}_1$$

$$= X \oplus Q_1$$

Realising:

