[2]

(1-1) (Aの符号, Bの符号, 演算種別, Rの符号) = (正、正、加算、負)

(負、負、加算、正)

(正、負、減算、負)

(負、正、減算、正)

(1-2) $(\overline{a_{n-1}} \wedge b_{n-1} \wedge sel \wedge \overline{r_{n-1}})$
$\vee (a_{n-1} \wedge \overline{b_{n-1}} \wedge sel \wedge r_{n-1})$
$\vee (\overline{a_{n-1}} \wedge b_{n-1} \wedge \overline{sel} \wedge r_{n-1})$
$\vee (a_{n-1} \wedge \overline{b_{n-1}} \wedge \overline{sel} \wedge \overline{r_{n-1}})$

(2-1) Mealy 型.

Moore 型

(2-2)
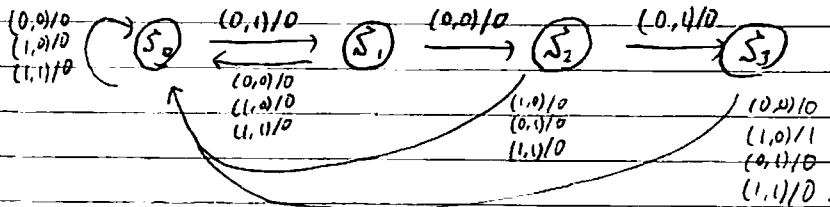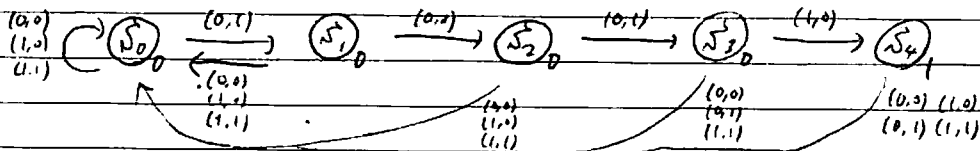
	次の状態				出力			
	(0,0)	(0,1)	(1,1)	(1,0)	(0,0)	(0,1)	(1,1)	(1,0)
S_0	S_0	S_1	S_0	S_0	0	0	0	0
S_1	S_2	S_0	S_0	S_0	0	0	0	0
S_2	S_0	S_3	S_0	S_0	0	0	0	0
S_3	S_0	S_0	S_0	S_0	0	0	0	1

(2-3)

$Q_1 Q_0$	$Q_1 Q_0$	$Q_1^+ Q_0^+$ 次入力(X_1, X_2)			
		(0,0)	(0,1)	(1,1)	(1,0)
S_0 (0, 0) ----	0 0	0 0	0 1	0 0	0 0
S_1 (0, 1) ----	0 1	1 1	0 0	0 0	0 0
S_2 (1, 1) ----	1 1	0 0	1 0	0 0	0 0
S_3 (1, 0) ----	1 0	0 0	0 0	0 0	0 0

Q_1^+					Q_0^+				
$Q_1 Q_0$	(0,0)	(0,1)	(1,1)	(1,0)	$Q_1 Q_0$	(0,0)	(0,1)	(1,1)	(1,0)
0 0	0	0	0	0	0 0	0	(1)	0	0
0 1	(1)	0	0	0	0 1	(1)	0	0	0
1 1	0	(1)	0	0	1 1	0	0	0	0
1 0	0	0	0	0	1 0	0	0	0	0

$$D_1 = \bar{Q}_1 Q_0 \bar{X}_1 \bar{X}_2$$
$$V\ Q_1 Q_0 \bar{X}_1 X_2$$

$$D_2 = \bar{Q}_1 \bar{Q}_0 \bar{X}_1 X_2$$
$$V\ \bar{Q}_1 Q_0 \bar{X}_1 X_2$$

(2-4)

$Q_1 Q_0$	Z			
	(0,0)	(0,1)	(1,1)	(1,0)
0 0	0	0	0	0
0 1	0	0	0	0
1 1	0	0	0	0
1 0	0	0	0	(1)

$$Z = Q_1 \cdot \bar{Q}_0 \cdot X_1 \bar{X}_2$$