

1905052

Sequence: 2-3-4-6-1-7-5

Number of F/Fs =  $\lceil \log_2 7 \rceil = 3$

Transition Table

$Y_2$	$Y_1$	$Y_0$	$Y_2$	$Y_1$	$Y_0$	$D_2$	$D_1$	$D_0$
0	1	0	0	1	1	0	1	1
0	1	1	1	0	0	1	0	0
1	0	0	1	1	0	1	1	0
1	1	0	0	0	1	0	0	1
0	0	1	1	1	1	1	1	1
1	1	1	1	0	1	1	0	1
1	0	1	0	1	0	0	1	0

K Map

D<sub>2</sub>

	$\overline{y_1} \overline{y_0}$	$\overline{y_1} y_0$	$y_1 \overline{y_0}$	$y_1 y_0$
$y_2$				
0	0	1	1	0
1	1	0	1	0

$$D_2 = \overline{y_1} \overline{y_0} + y_1 y_0 + \overline{y_2} y_0$$

D<sub>1</sub>

	$\overline{y_1} \overline{y_0}$	$\overline{y_1} y_0$	$y_1 \overline{y_0}$	$y_1 y_0$
$y_2$				
0	0	1	0	1
1	1	1	0	0

$$D_1 = \overline{y_1} + \overline{y_2} \overline{y_0}$$

D<sub>0</sub>

	$\overline{y_1} \overline{y_0}$	$\overline{y_1} y_0$	$y_1 \overline{y_0}$	$y_1 y_0$
$y_2$				
0	0	1	0	1
1	0	0	1	1

~~$$D_0 = \overline{y_1} \overline{y_0} + \overline{y_2} \overline{y_0} + y_1 \overline{y_0}$$~~

$$D_0 = \overline{y_2} \overline{y_1} + \overline{y_2} y_1 + y_1 \overline{y_0}$$