

6-6

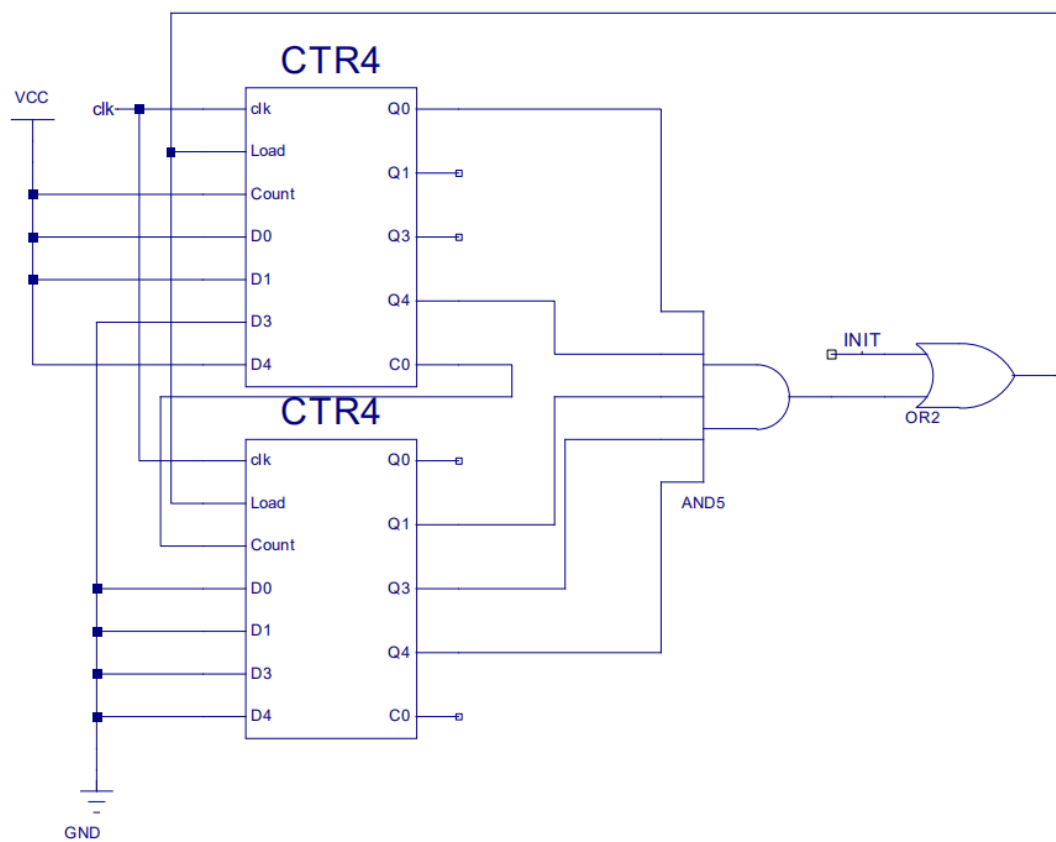
(a)

1000 \rightarrow 0100 \rightarrow 0010 \rightarrow 0001 \rightarrow 1000 \rightarrow ...

(b)

There are n states.

6-13



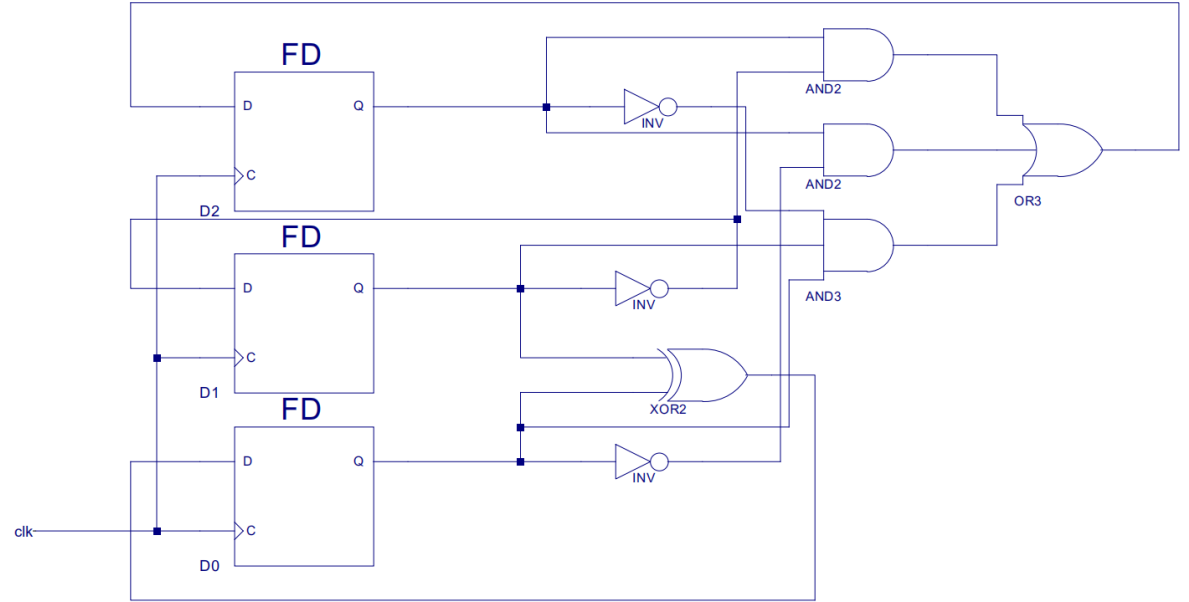
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Present	Next
000	010
001	011
010	001
011	100
100	110
101	111
110	101
111	000

$$D_2 = D_2 \overline{D_1} + D_2 \overline{D_0} + \overline{D_2} D_1 D_0$$

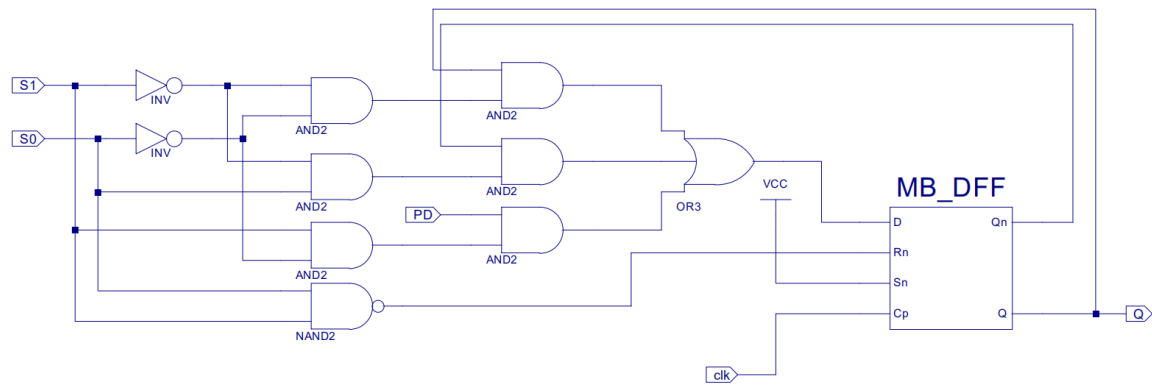
$$D_1 = \overline{D_1}$$

$$D_0 = D_1 \overline{D_0} + D_0 \overline{D_1}$$

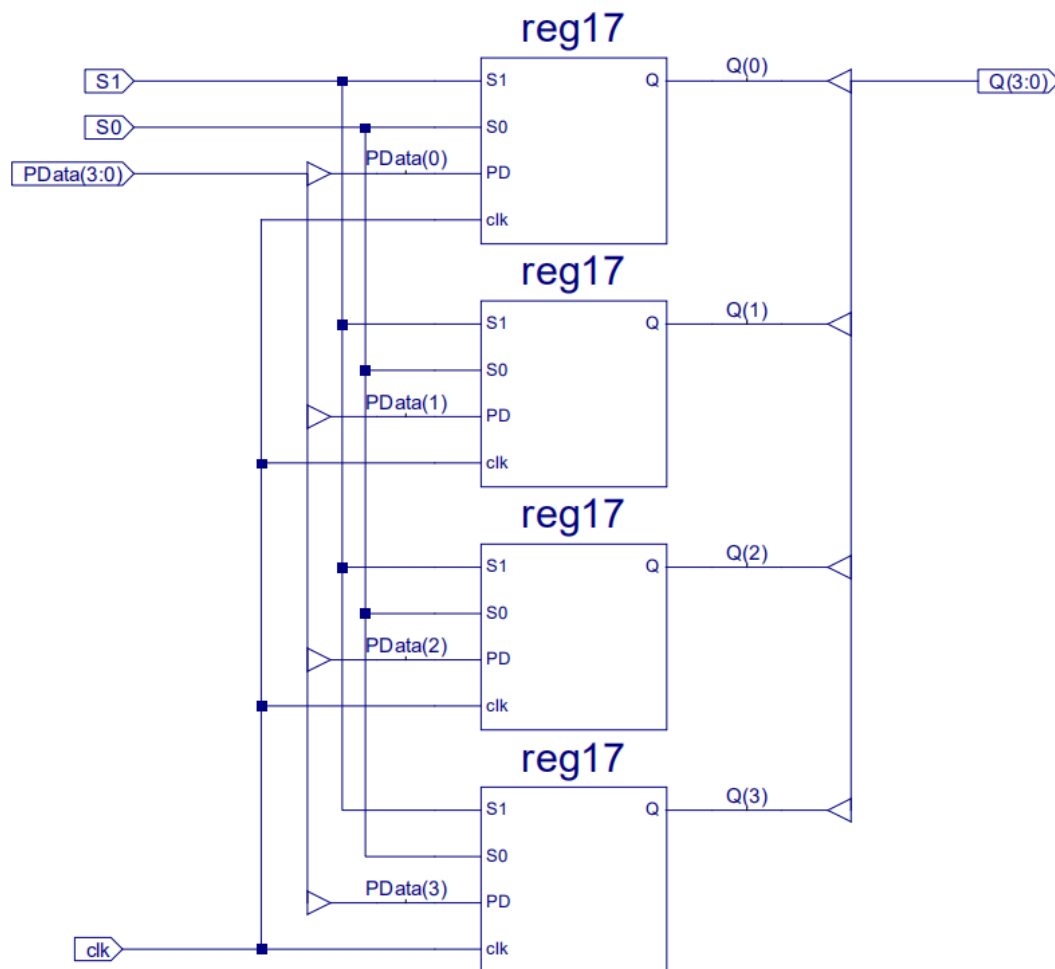


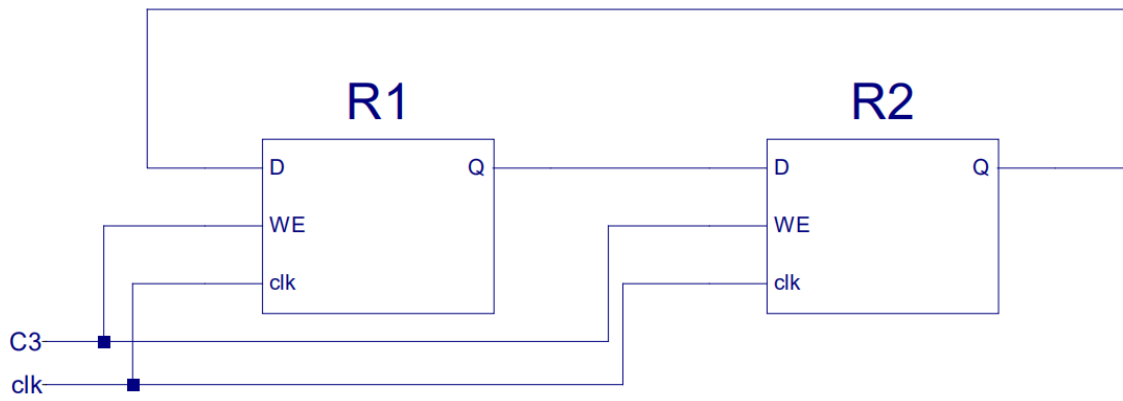
6-17

Such a one-bit register is:



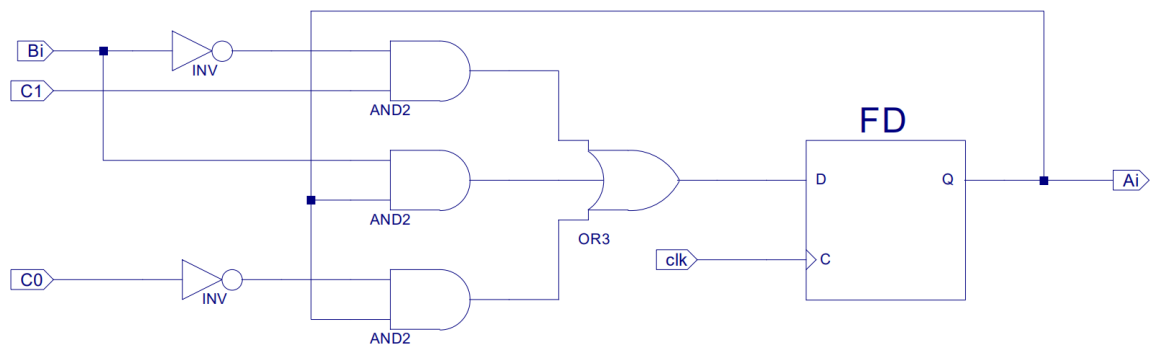
The 4-bit register is:





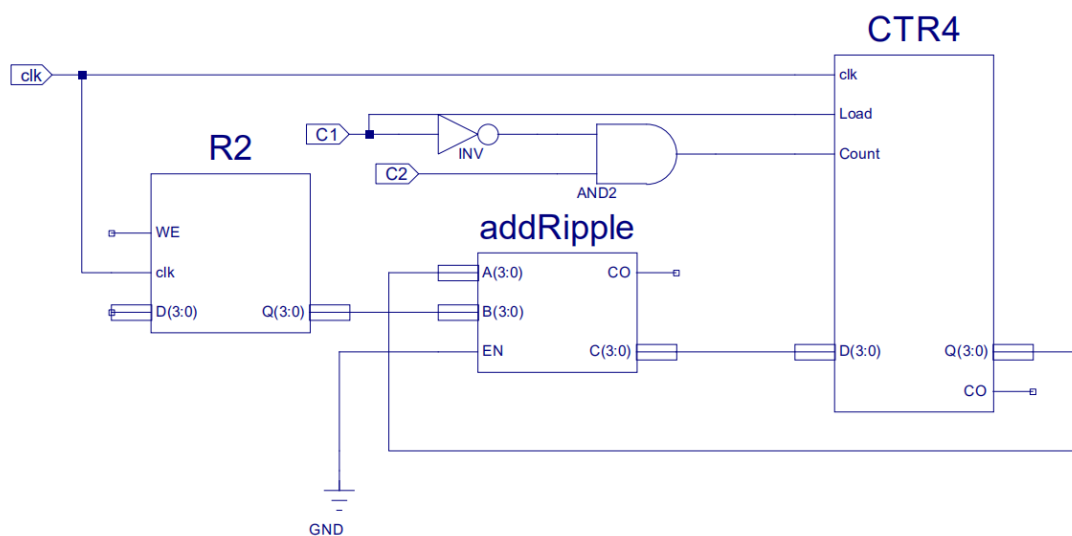
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Instructions C1 and C0 won't be 1 at the same time.



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(a)



(b)

