

ECE216: Digital Electronics Laboratory

Exp -7

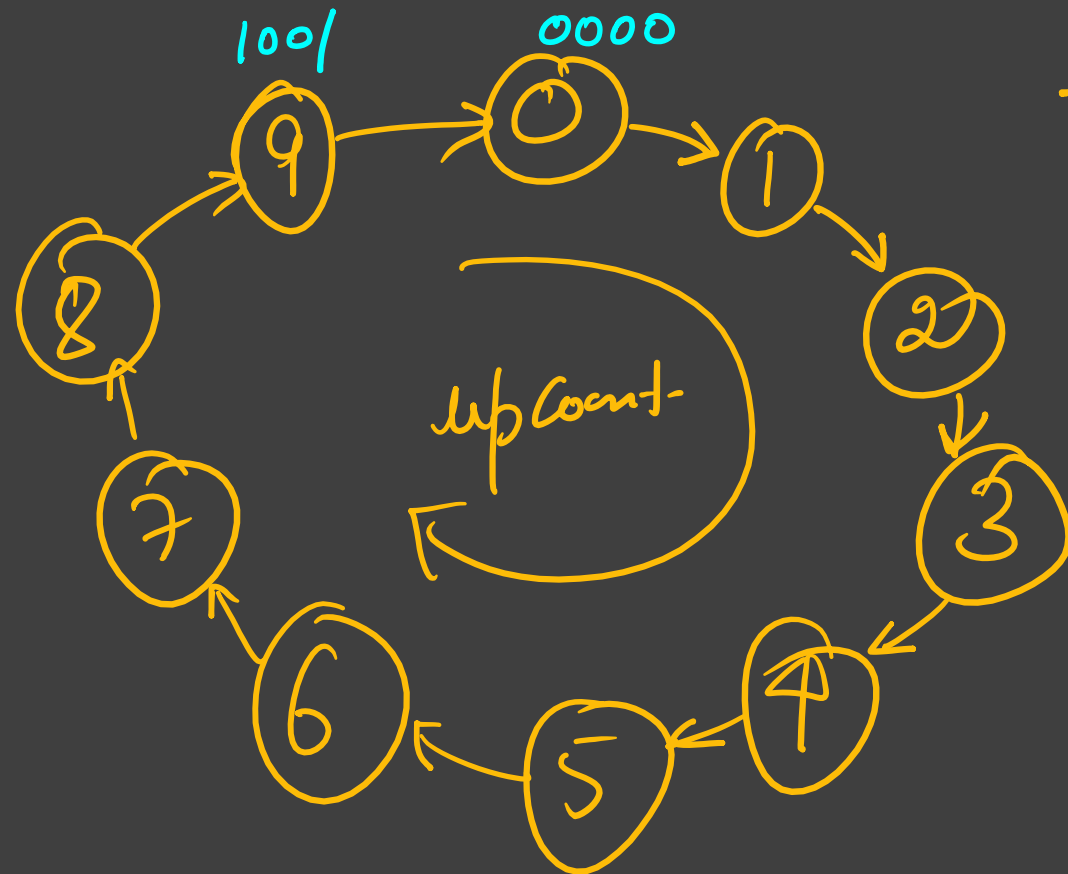
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★ Decade Counter (MOD 10)

0-9 Dec. number Counter
up Counter. (Asyn.)



	D	C	B	A
0	0	0	0	0
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1

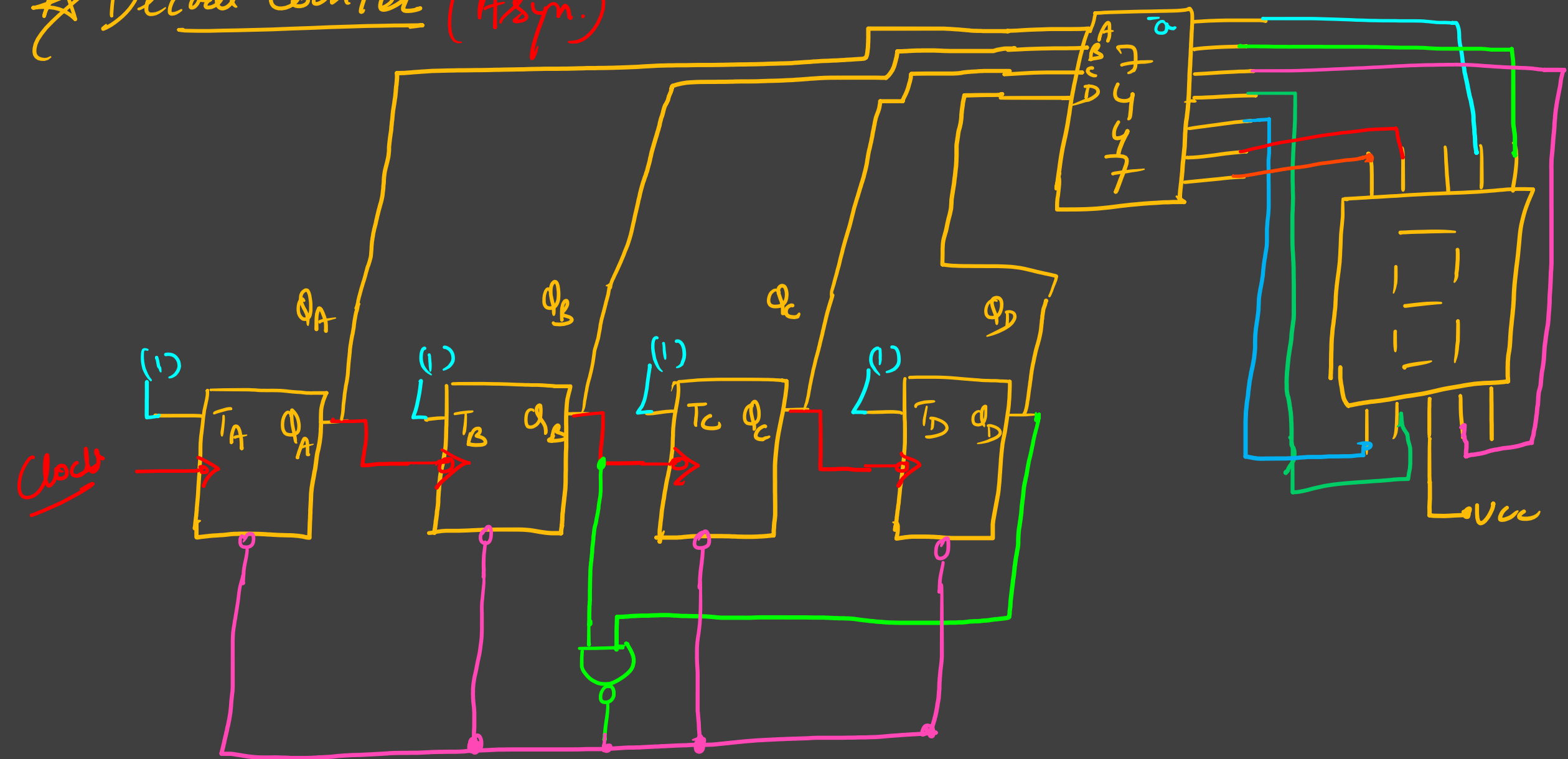
FF D & B

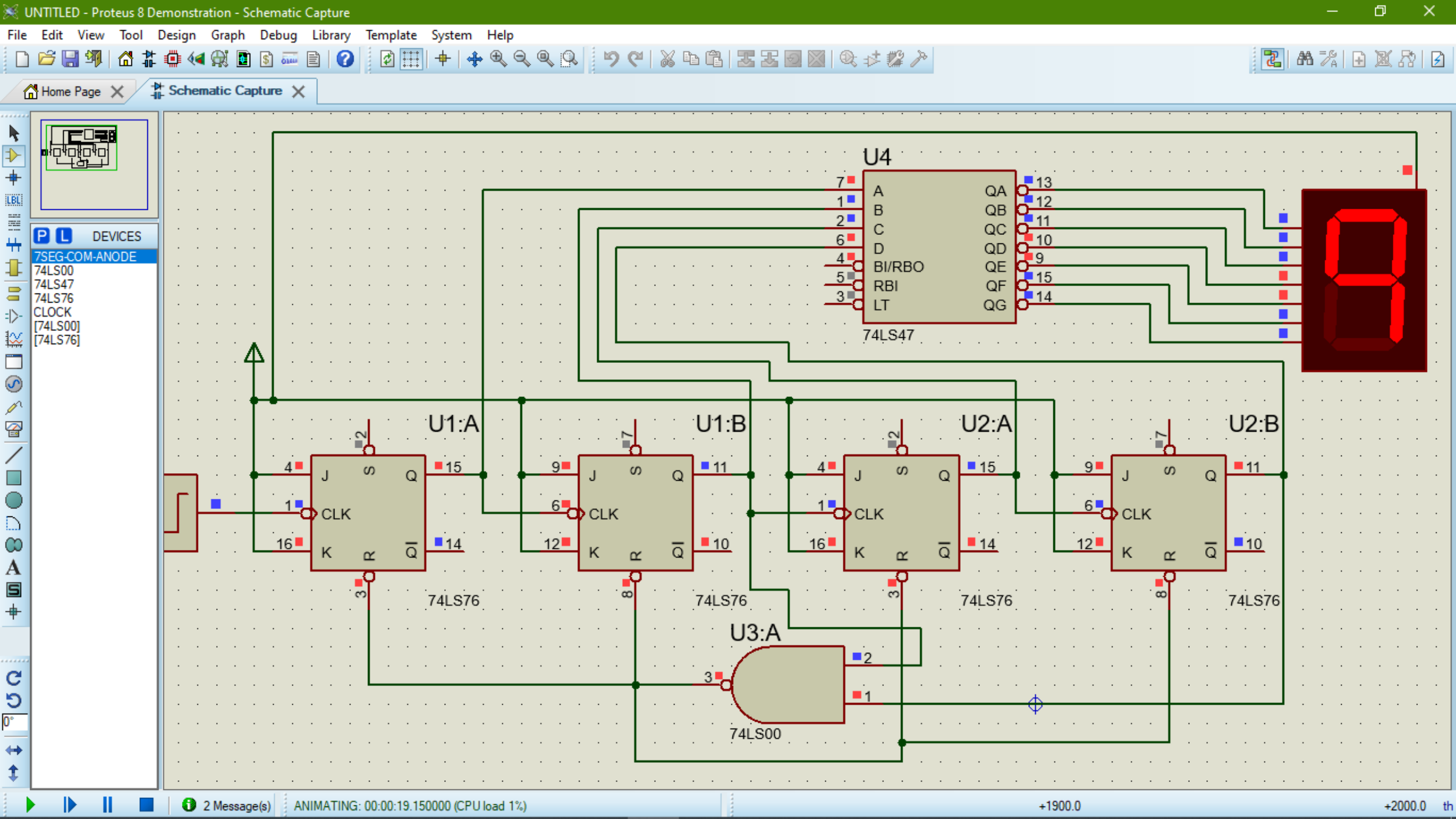
Q: How many FF require to make a decade Counter

A) 1
B) 2

C) 3
✓ D) 4.

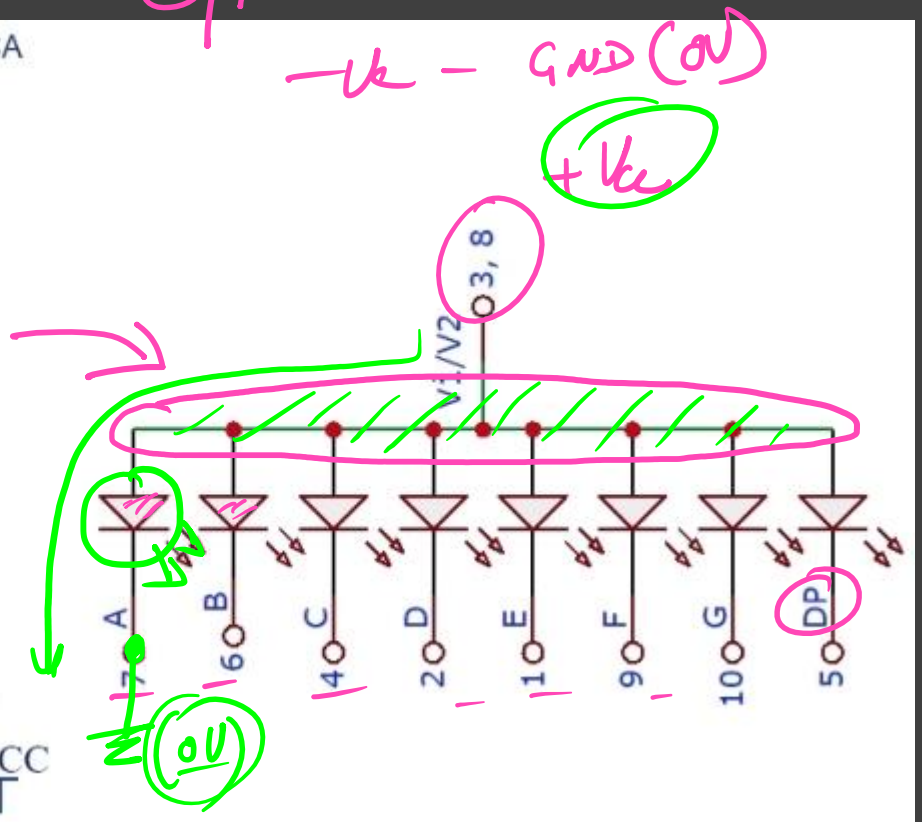
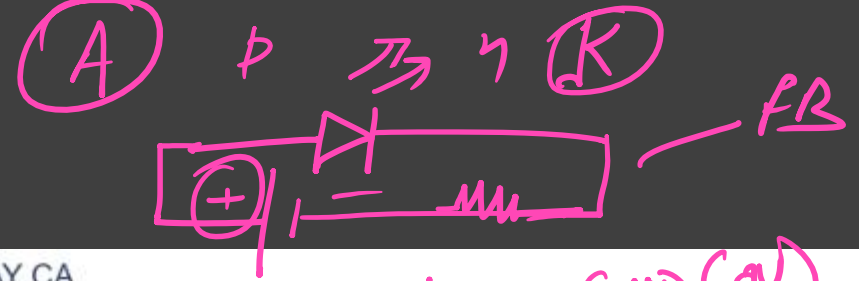
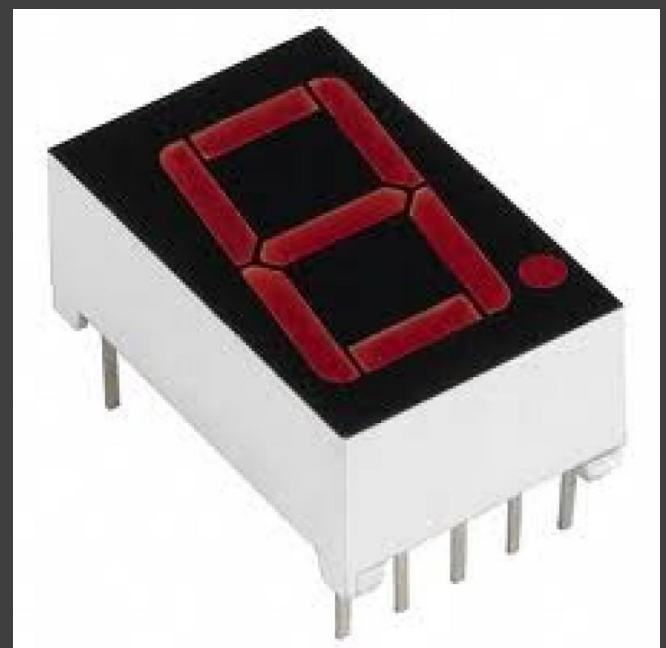
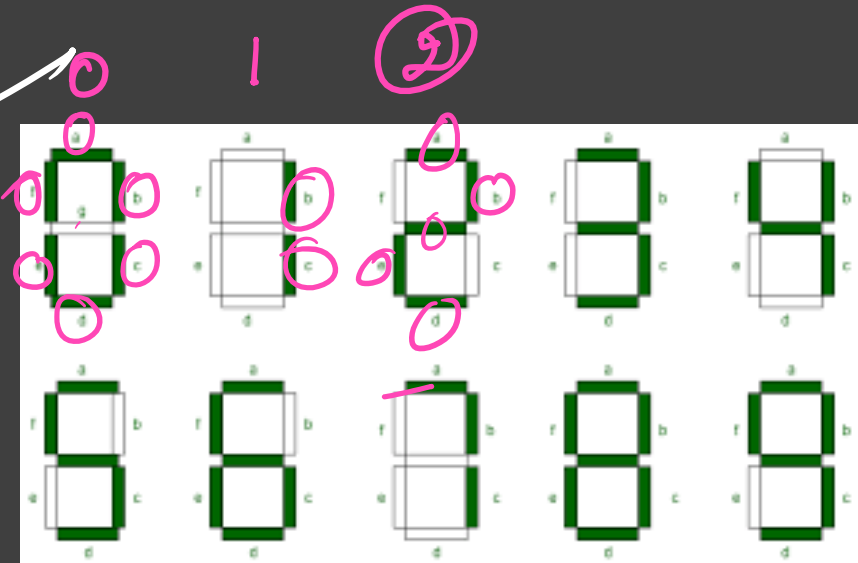
★ Decode Counter (Asyn.)





★ Seven Segment Display

7-seg ca

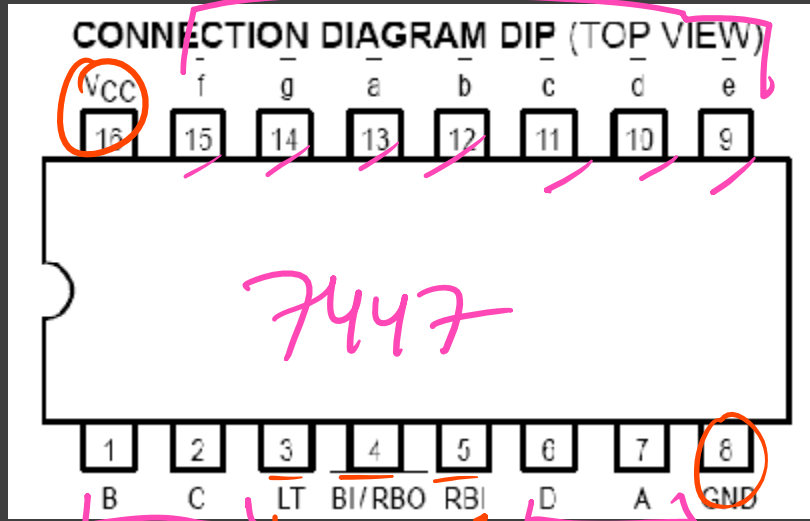


Type of 7-Seg.

- ★ Common Anode (Active low)
- ★ Common Cathode (Active high)

★ IC 7447 (7-seg dec IC)

Actual

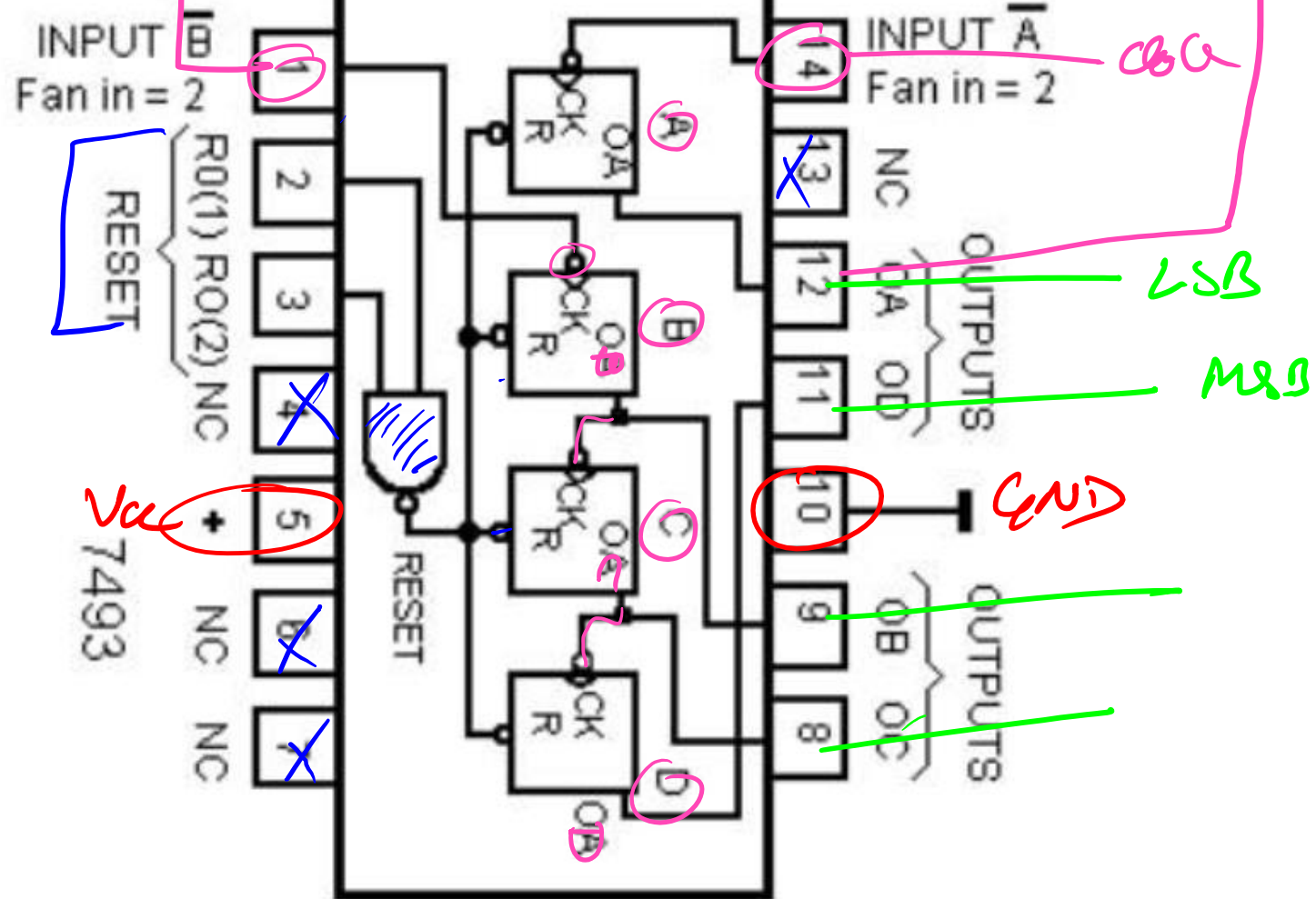


MSB
DCBA
LSB

i/p				o/p						
D	C	B	A	\bar{a}	\bar{b}	\bar{c}	\bar{d}	\bar{e}	\bar{f}	\bar{g}
0	0	0	0	0	0	0	0	0	0	1
0	0	0	1	1	0	0	1	1	1	1
0	0	1	0	0	0	1	0	0	1	0
1	0	0	1							

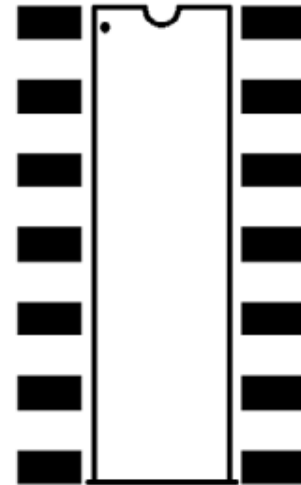
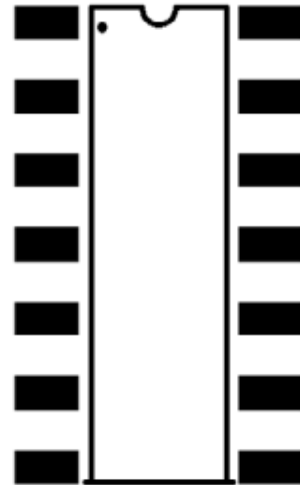
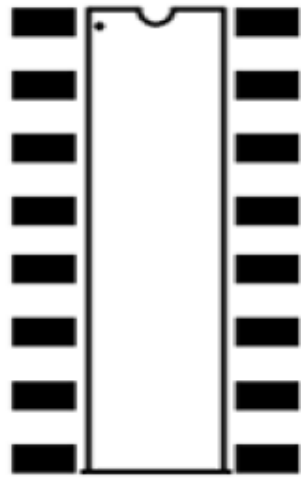
★ IC 7493

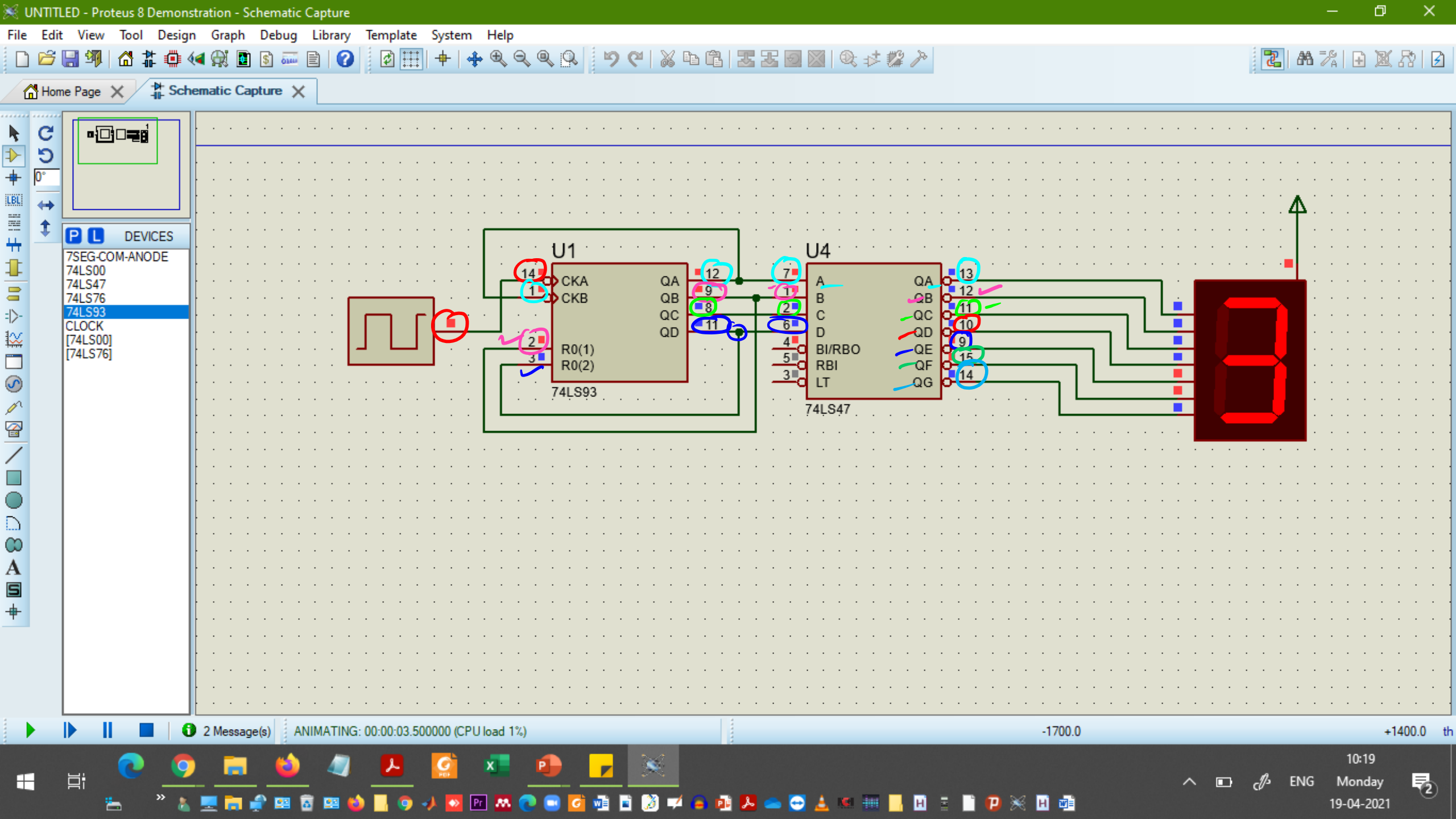
NC! Not Connected



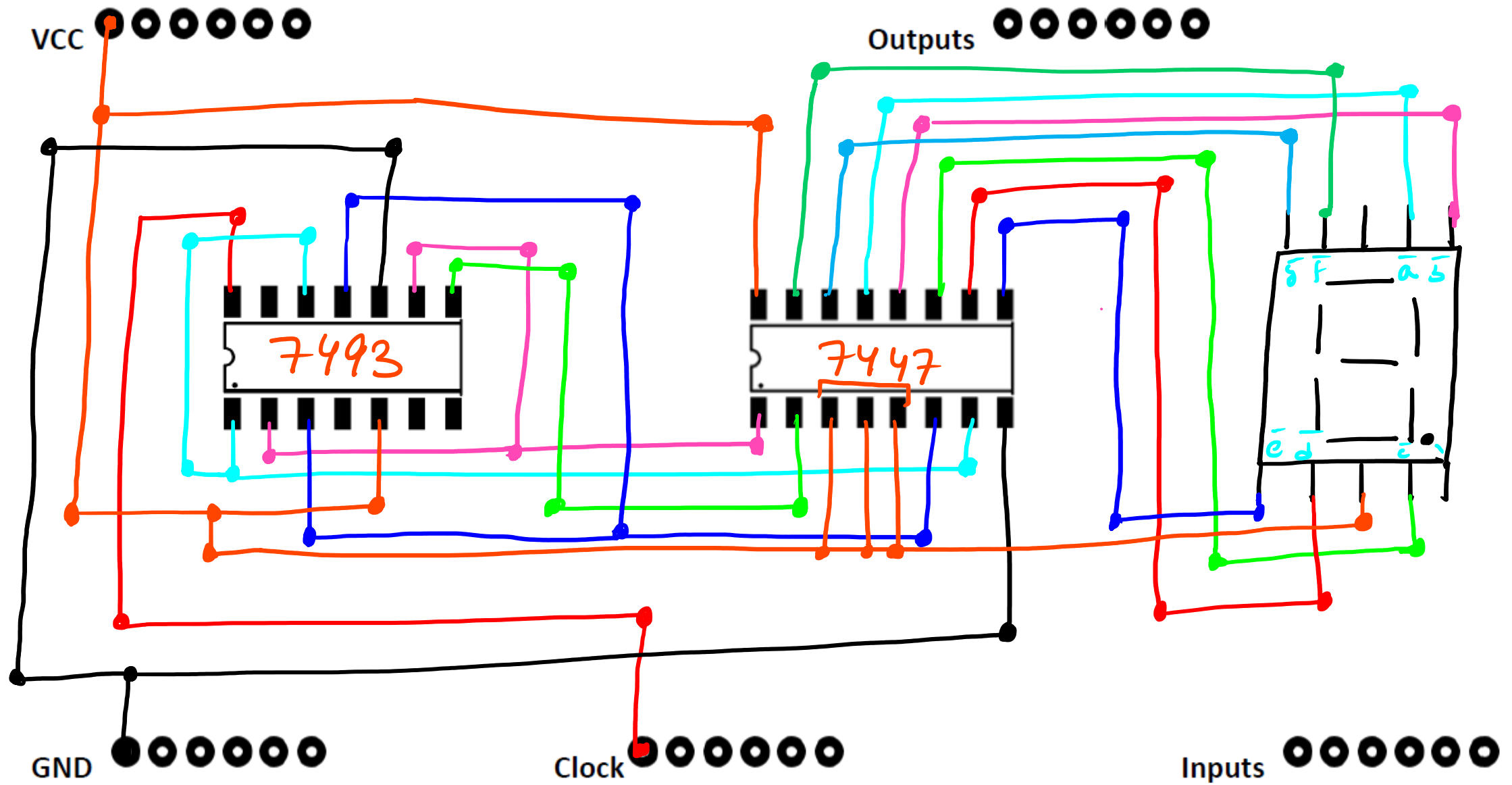
4. Procedure:

Pin configuration of ICs:





Draw Bread Board Connection diagram: Decade Counter



7.10

MOD 10

- MOD 9 Counter
- MOD 8
- MOD 7
- MOD 6
- MOD 11
- MOD 5