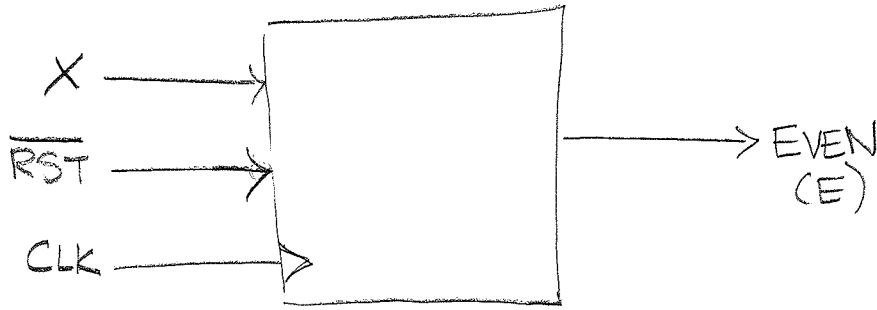


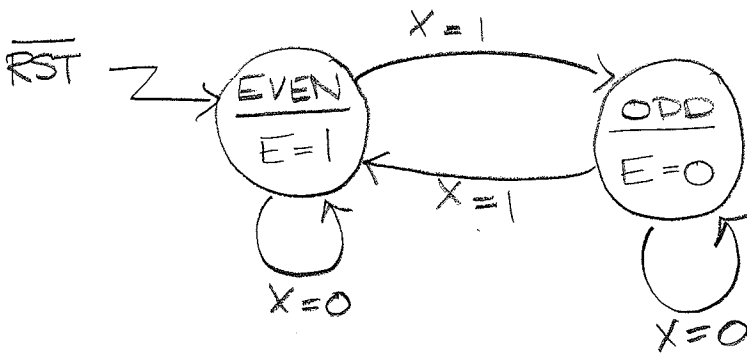
# PARITY CHECK - MOORE

## ① SPEC



E shd be 1 when there have been an even # of 1s on X (since last reset.)

## ① STATE TRANSITION DIAGRAM



## ② SYMBOLIC TRANSITION TABLE (STATE TRANS.)

Q	CURR STATE	X	NEXT STATE	D
1	EVEN	1	ODD	0
1	EVEN	0	EVEN	1
0	ODD	1	EVEN	1
0	ODD	0	ODD	0

③ PICK STATE ENCODING

2/3

CURR STATE	Q
EVEN	1
ODD	0

④ DESIGN/ OUTPUT LOGIC DETERMINE

CURR STATE	Q	E
0	0	0
1	1	1

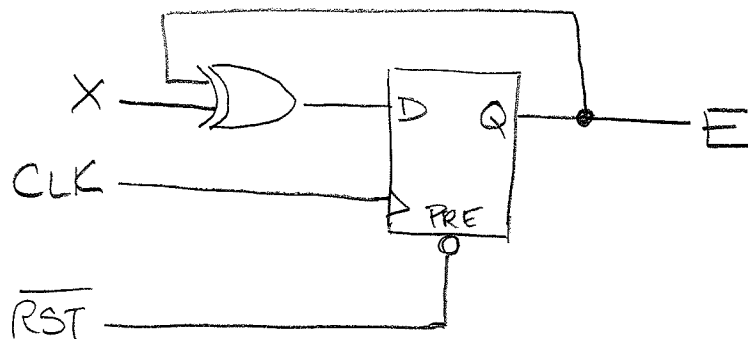
$E = Q$

⑤ DETERMINE NEXT STATE LOGIC (FROM TRANS. TAB.)

Q	X	D
1	1	0
1	0	1
0	1	1
0	0	0

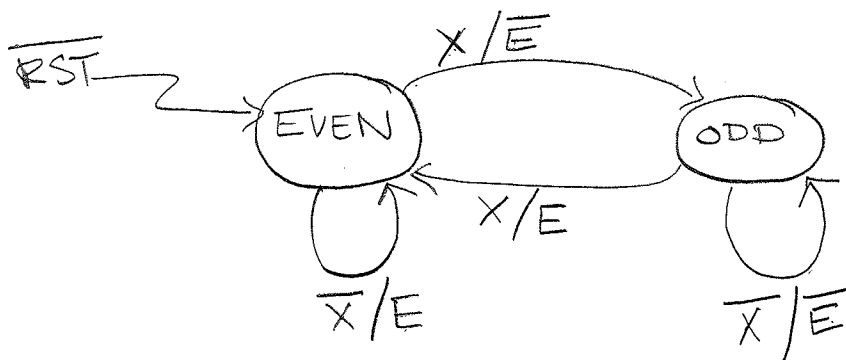
$D = Q \oplus X$

⑥ DRAW SCHEMATIC / DEAL W.  $\overline{RST}$



# PARITY CHECK - MEALY

Format  
input(s) / output(s)



CURR	X	NEXT	E
EVEN	0	EVEN	1
EVEN	1	ODD	0
ODD	0	ODD	0
ODD	1	EVEN	1

$$E = f(Q, X)$$

output logic

$$D = g(Q, X)$$

next state logic