Incompletely-Specified State tables

1. Number of states $\neq 2^n$
2. Input sequences which don't occur
   or don't care what happens when it does
3. Outputs only sampled at certain times
4. Input might be the last event in a sequence
   - general reset follows.

e.g.

PS	NS $x=0$	NS $x=1$	Z $x=0$	Z $x=1$
A	B	D	0	1
B	—	C	1	0
C	B	D	0	1
D	B	D	0	1

Fill in trial + error

one solution

$A \equiv C \equiv D$

PS	NS $x=0$	NS $x=1$	Z $x=0$	Z $x=1$
A	B	A	0	1
B	—	A	1	0

PS	NS $x=0$	NS $x=1$	Z $x=0$	Z $x=1$
A	B	A	0	1
B	B	B	1	0
C	B	C	1	0
D	B	D	0	1

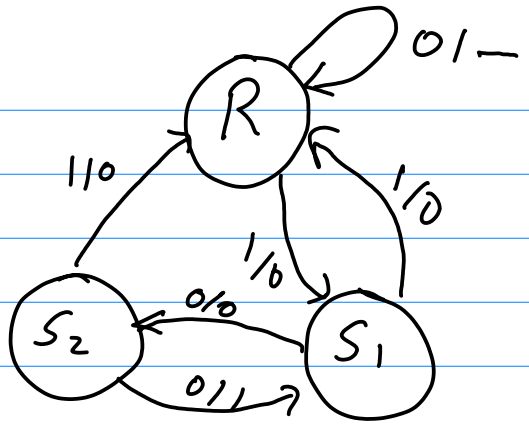
another solution

$A \equiv D$

$B \equiv C$

PS	NS $x=0$	NS $x=1$	Z $x=0$	Z $x=1$
A	B	A	0	1
B	B	B	1	0

Another example



Reset state
First "1" gets it going every other zero. → 1 on output

PS	NS X=0	NS X=1	Z X=0	Z X=1
R	R	S_1	1—0	0
S_1	S_2	R	0	0
S_2	S_1	R	1	0

doesn't work

doesn't work

PS	NS X=0	NS X=1	Z X=0	Z X=1
R_1	R_2	S_1	0	0
R_2	R_1	S_1	1	0
S_1	S_2	R_1	0	0
S_2	S_1	R_1	1	0

$S_1 \stackrel{?}{=} R_1$ ✓

$S_2 \stackrel{?}{=} R_2$ ✓