

15.40 Show that the following incompletely specified table can be reduced to a table with seven states. (Hint: This table can be reduced by applying row matching where a don't-care "matches" anything.)

Present State	Next State		Output (Z)	
	X = 0	X = 1	X = 0	X = 1
S_0	S_1	S_2	0	0
S_1	S_3	S_4	0	0
S_2	S_5	S_6	0	0
S_3	S_7	S_8	0	0
S_4	S_8	S_9	0	0
S_5	S_{10}	S_9	0	0
S_6	S_9	S_8	0	0
S_7	S_0	S_0	1	0
S_8	S_0	-	0	-
S_9	S_0	-	1	-
S_{10}	S_0	S_0	0	1