$$x = 12$$

Truth table:

	PS. $Y_3 Y_2 Y_1 Y_0$	NS. (X=0) $Y_3 Y_2 Y_1 Y_0$	Requirement $T_3 T_2 T_1 T_0$
⓪	0 0 0 0	0 0 0 1 ① ⟶	0 0 0 1
①	0 0 0 1	0 0 1 0 ② ⟶	0 0 1 1
②	0 0 1 0	0 0 1 1 ③ ⟶	0 0 0 1
③	0 0 1 1	0 1 0 0 ④ ⟶	0 1 1 1
④	0 1 0 0	0 1 0 1 ⑤ ⟶	0 0 0 1
⑤	0 1 0 1	0 1 1 0 ⑥ ⟶	0 0 1 1
⑥	0 1 1 0	0 1 1 1 ⑦ ⟶	0 0 0 1
⑦	0 1 1 1	1 0 0 0 ⑧ ⟶	1 1 1 1
⑧	1 0 0 0	1 0 0 1 ⑨ ⟶	0 0 0 1
⑨	1 0 0 1	1 0 1 0 ⑩ ⟶	0 0 1 1
⑩	1 0 1 0	1 0 1 1 ⑪ ⟶	0 0 0 1
⑪	1 0 1 1	1 1 0 0 ⑫ ⟶	0 1 1 1
⑫	1 1 0 0	0 0 0 0 ⓪ ⟶	0 0 1 1

(T_3)

$Y_3 Y_2$ \ $Y_1 Y_0$	00	01	11	10
00	0	0	0	0
01	0	0	0	0
11	0	X	X	X
10	0	0	0	0

⟶ $Y_2 Y_1 Y_0$.

T_2

$Y_3Y_2 \backslash Y_1Y_0$	00	01	11	10
00	0	0	(1)	0
01	0	0	0	0
11	0	x	x	x
10	0	0	(1)	0

$$T_2 = \overline{Y_2} Y_1 Y_0$$

T_1

$Y_3Y_2 \backslash Y_1Y_0$	00	01	11	10
00	0	(1)		0
01	0	0	0	
11	(1)	x	x	x
10	0	(1)	(1)	0

$$T_1 = \overline{Y_2}\,\overline{Y_0} + \overline{Y_1}\,Y_0 + Y_3 Y_2$$

T_0

$Y_3Y_2 \backslash Y_1Y_0$	00	01	11	10
00	1	1	1	1
01	1	1	0	1
11	1	x	x	x
10	1	1	1	1

$$T_0 = \overline{Y_2} + \overline{Y_1} + \overline{Y_0}$$