

Technische Informatik: Abgabe 10

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Exercise 10.1 (7-Segment display PLA)

Truthtable for LED-display

i	w	x	y	z	a	b	c	d	e	f	g
0	0	0	0	0	1	1	1	1	1	1	0
1	0	0	0	1	0	1	1	0	0	0	0
2	0	0	1	0	1	1	0	1	1	0	1
3	0	0	1	1	1	1	1	1	0	0	1
4	0	1	0	0	0	1	1	0	0	1	1
5	0	1	0	1	1	0	1	1	0	1	1
6	0	1	1	0	0	0	1	1	1	1	1
7	0	1	1	1	1	1	1	0	0	0	0
8	1	0	0	0	1	1	1	1	1	1	1
9	1	0	0	1	1	1	1	0	0	1	1
10	1	0	1	0	-	-	-	-	-	-	-
11	1	0	1	1	-	-	-	-	-	-	-
12	1	1	0	0	-	-	-	-	-	-	-
13	1	1	0	1	-	-	-	-	-	-	-
14	1	1	1	0	-	-	-	-	-	-	-
15	1	1	1	1	-	-	-	-	-	-	-

This leads to these K-maps:

a	yz			
wx	00	01	11	10
00	1	0	1	1
01	0	1	1	0
11	d	d	d	d
10	1	1	d	d