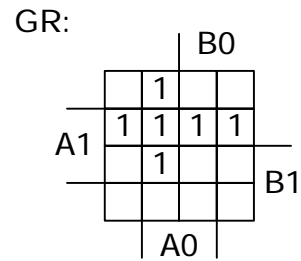


a) Skizze



c) Minimierung



b) Wahrheitstabelle

A1	A0	B1	B0	GR
0	0	0	0	0
0	0	0	1	0
0	0	1	0	0
0	0	1	1	0
0	1	0	0	1
0	1	0	1	0
0	1	1	0	0
0	1	1	1	0
1	0	0	0	1
1	0	0	1	1
1	0	1	0	0
1	0	1	1	0
1	1	0	0	1
1	1	0	1	1
1	1	1	0	1
1	1	1	1	0

$$GR = (A1 \wedge \overline{B1}) \vee (A0 \wedge \overline{B1} \wedge \overline{B0})$$

$$\vee (A1 \wedge A0 \wedge \overline{B0})$$

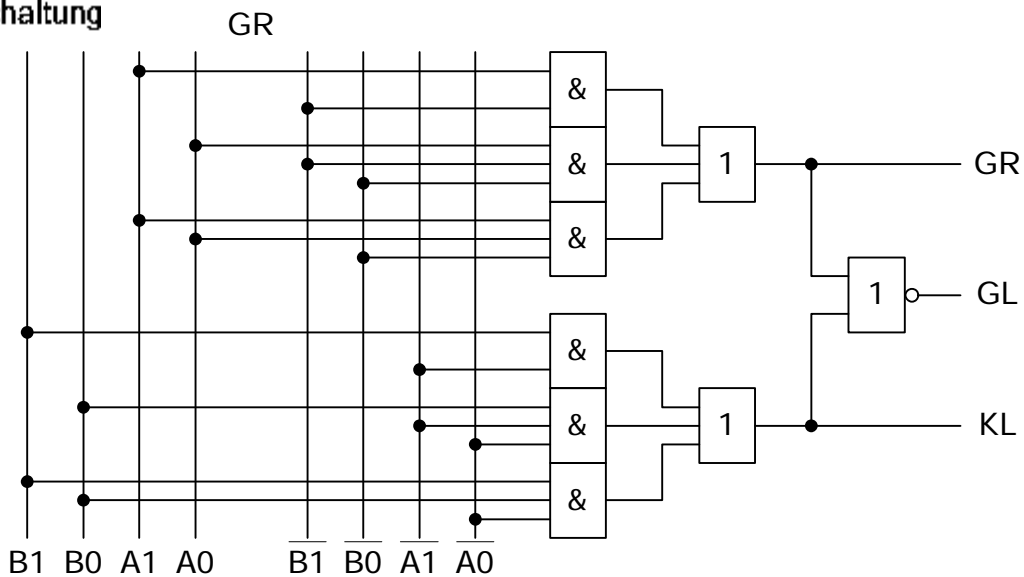
⇓ KL (Ai und Bi austauschen)

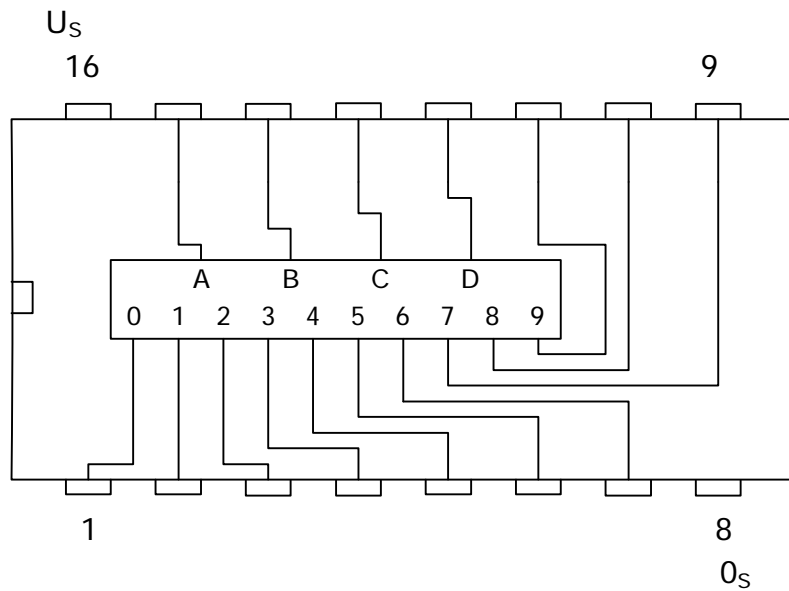
$$KL = (B1 \wedge \overline{A1}) \vee (B0 \wedge \overline{A1} \wedge \overline{A0})$$

$$\vee (B1 \wedge B0 \wedge \overline{A0})$$

$$GL = \overline{(GR \vee KL)}$$

d) Schaltung



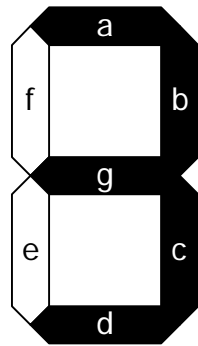


Anschlußanordnung Ansicht von oben

Logisches Verhalten

BCD-Eingänge				Dezimal-Ausgänge									
D	C	B	A	0	1	2	3	4	5	6	7	8	9
L	L	L	L	L	H	H	H	H	H	H	H	H	H
L	L	L	H	H	L	H	H	H	H	H	H	H	H
L	L	H	L	H	H	L	H	H	H	H	H	H	H
L	L	H	H	H	H	H	L	H	H	H	H	H	H
L	H	L	L	H	H	H	H	L	H	H	H	H	H
L	H	L	H	H	H	H	H	H	L	H	H	H	H
L	H	H	L	H	H	H	H	H	H	L	H	H	H
L	H	H	H	H	H	H	H	H	H	H	L	H	H
H	L	L	L	H	H	H	H	H	H	H	H	L	H
H	L	L	H	H	H	H	H	H	H	H	H	H	L
H	L	H	L	H	H	H	H	H	H	H	H	H	H
H	L	H	H	H	H	H	H	H	H	H	H	H	H
H	H	L	L	H	H	H	H	H	H	H	H	H	H
H	H	L	H	H	H	H	H	H	H	H	H	H	H
H	H	H	L	H	H	H	H	H	H	H	H	H	H
H	H	H	H	H	H	H	H	H	H	H	H	H	H

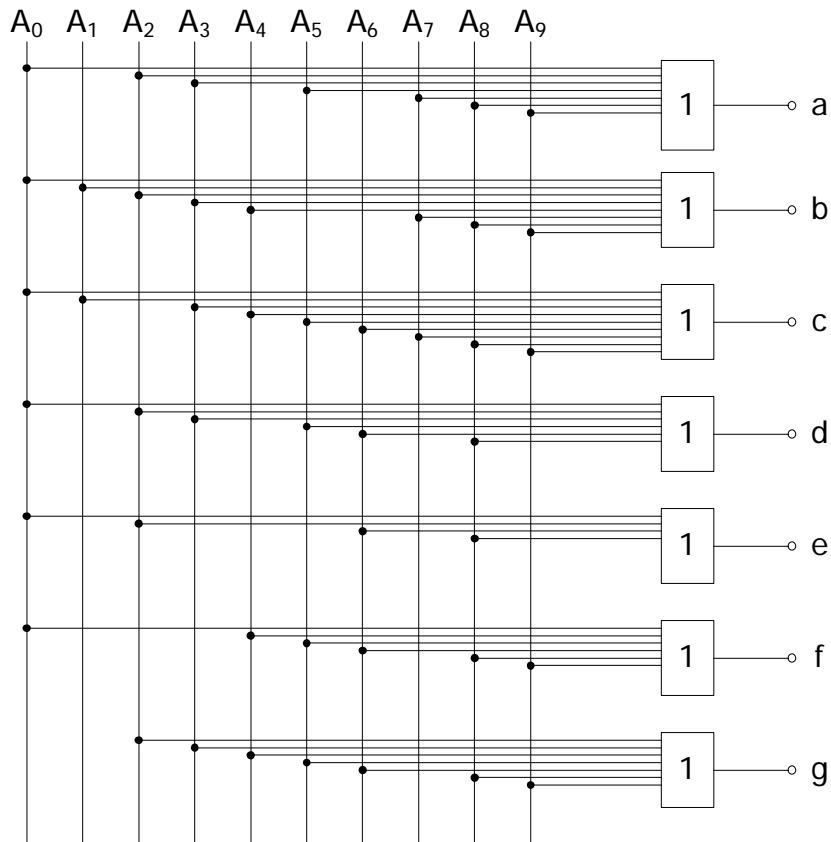
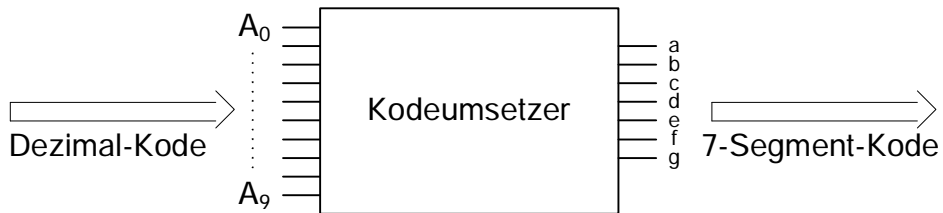
7-Segment-Anzeigeeinheit



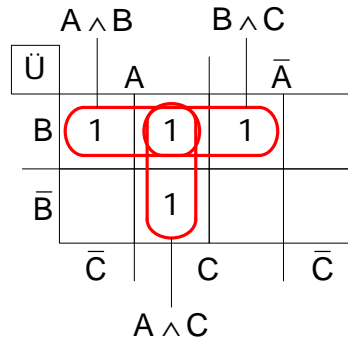
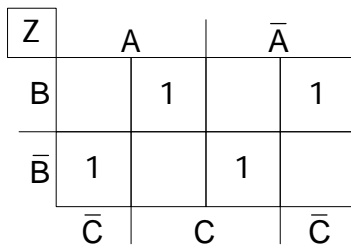
7-Segment-Kode

Dezimalziffer	a	b	c	d	e	f	g
0	1	1	1	1	1	1	0
1	0	1	1	0	0	0	0
2	1	1	0	1	1	0	1
3	1	1	1	1	0	0	1
4	0	1	1	0	0	1	1
5	1	0	1	1	0	1	1
6	0	0	1	1	1	1	1
7	1	1	1	0	0	0	0
8	1	1	1	1	1	1	1
9	1	1	1	0	0	1	1

Dezimal-7-Segment-Kodeumsetzer



KV-Diagramme eines Volladdierers



Schaltung eines Volladdierers

