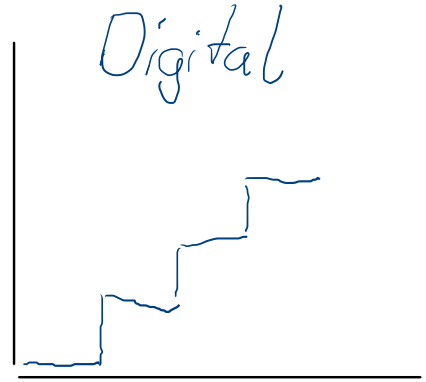
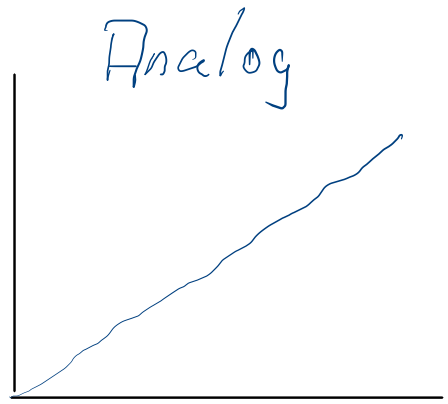
Binär (digital)

An	1	wahr	5V
Aus	0	falsch	0V

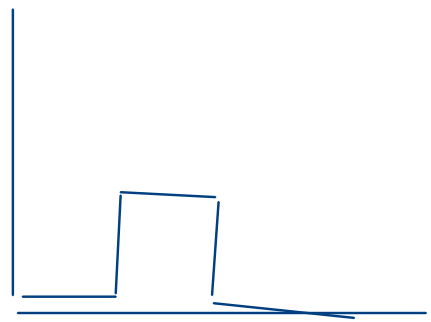
Digital



Analog



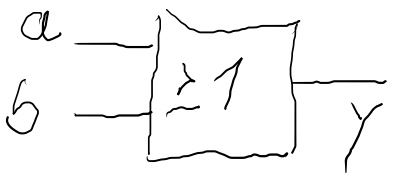
Binär

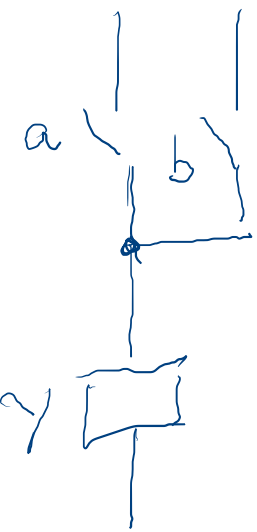


Disjunktion

ODER
(or)

Funktionsblock





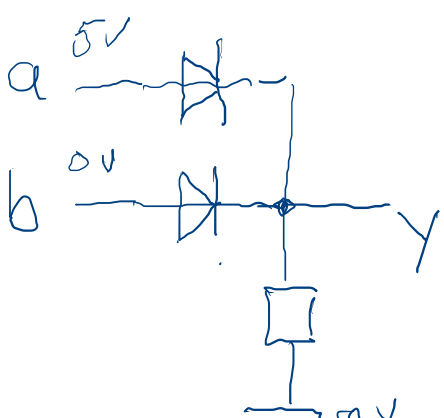
Wahrheitstabelle

	b	a	y
1	0	0	0
2	0	1	1
3	1	0	1
4	1	1	1

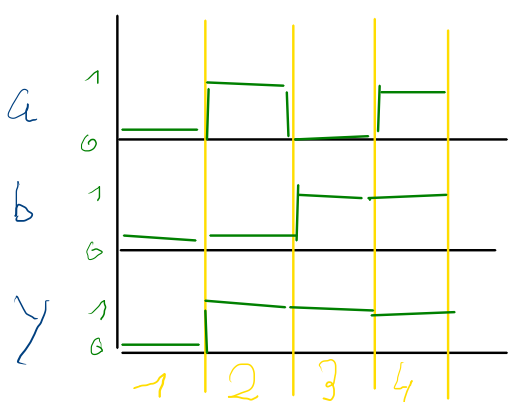
Boolsche Algebra

$a \vee b = y$

$a \neq b = y$



Signaldiagramm



Wahrheitstabelle

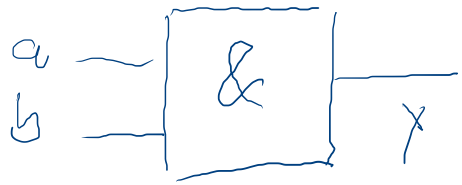
Wertigkeit

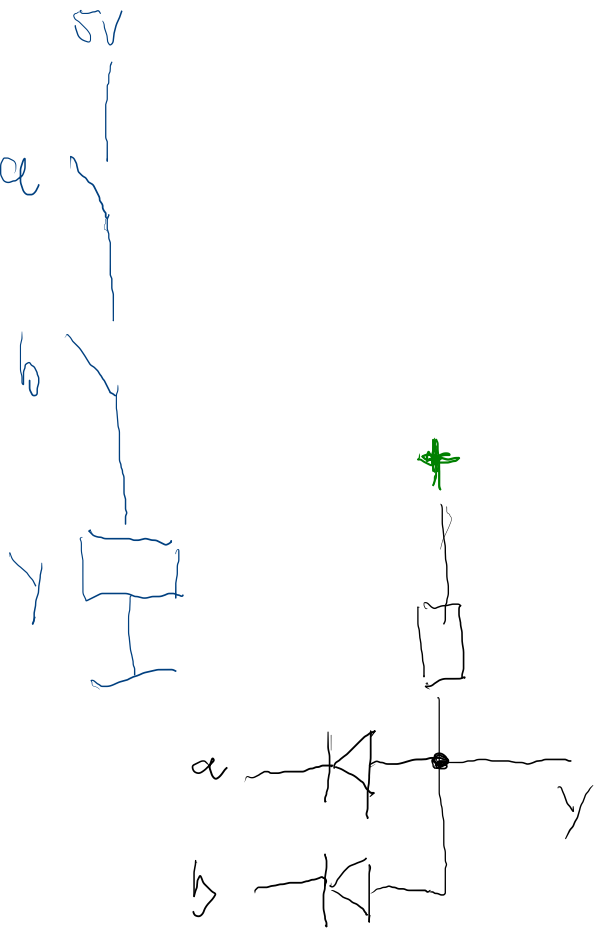
dezimal
dual

4	2	1	
2^2	2^1	2^0	
c	b	a	y
0	0	0	
0	0	1	
0	1	0	
0	1	1	
1	0	0	
1	0	1	
1	1	0	
1	1	1	

Konjunktion

UND
(and)

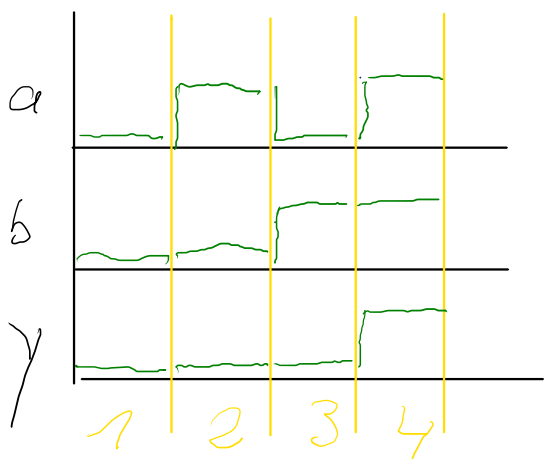


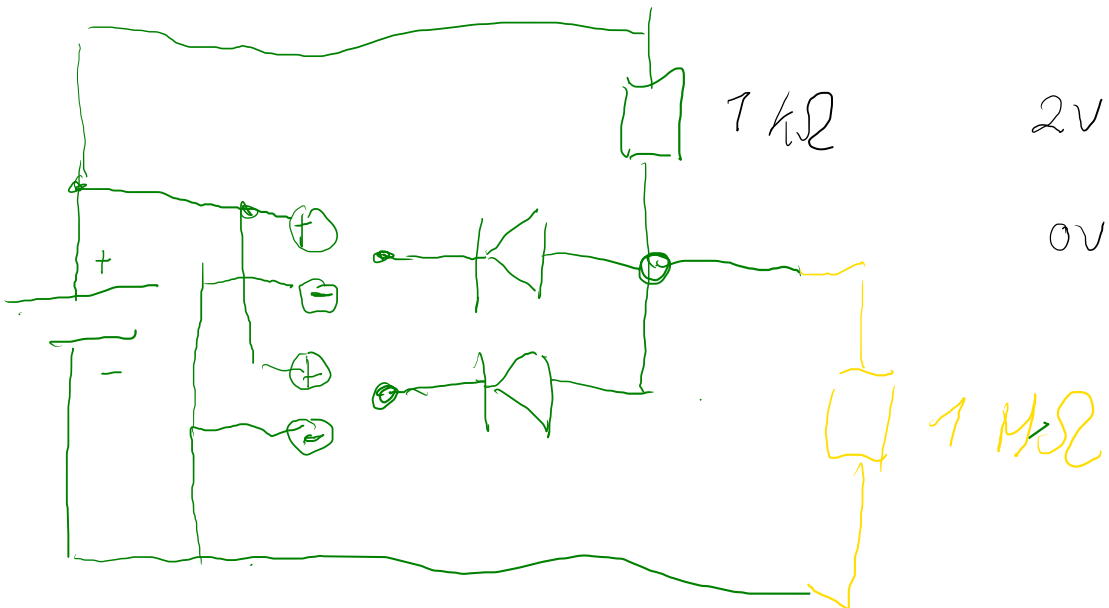


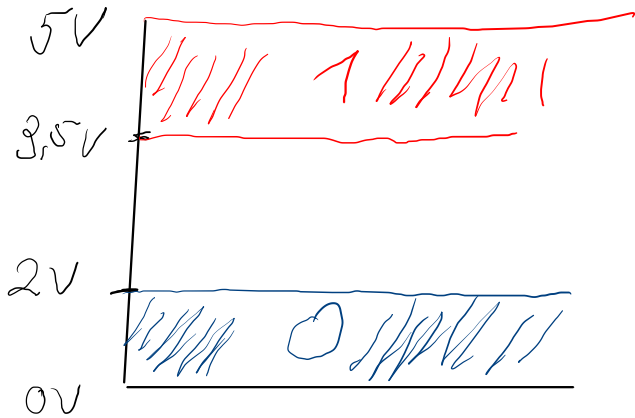
	b	a	y
1	0	0	0
2	0	1	0
3	1	0	0
4	1	1	1

$a \wedge b = y$

$a \cdot b = y$

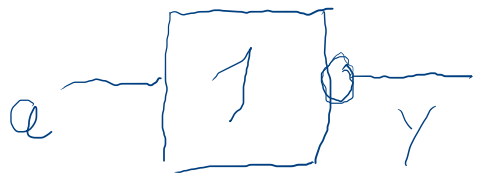


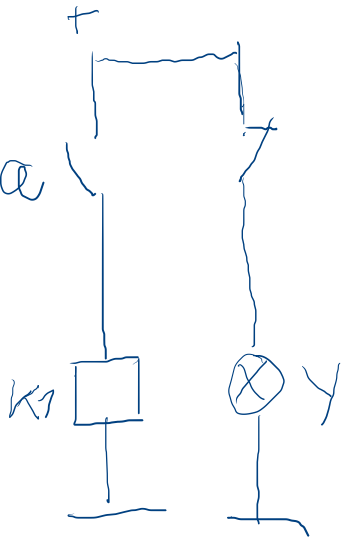

1 kΩ
+
−
+
−
1 MΩ


5V
3,5V
2V
0V
1
0

Negation

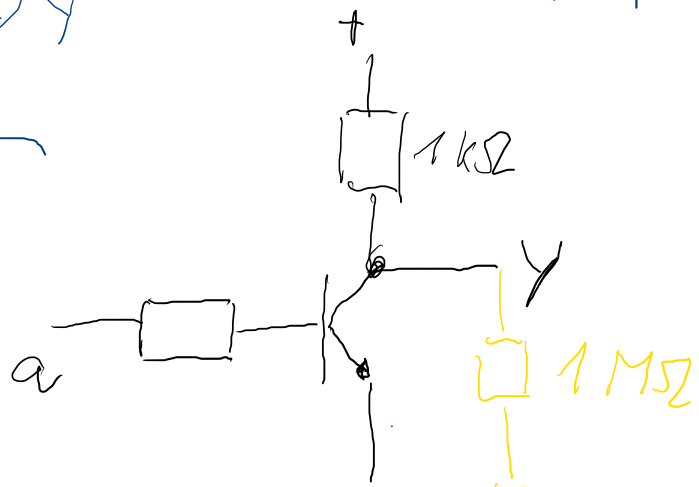
NICHT (not)

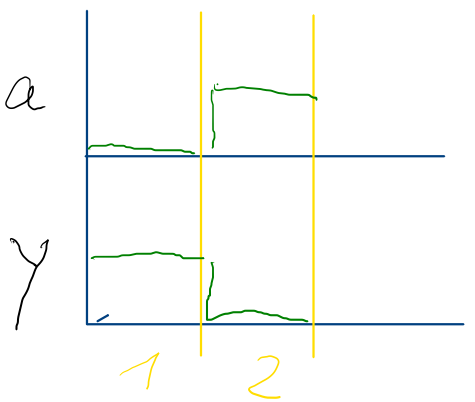




	a	y
1	0	1
2	1	0

$a = \overline{y}$



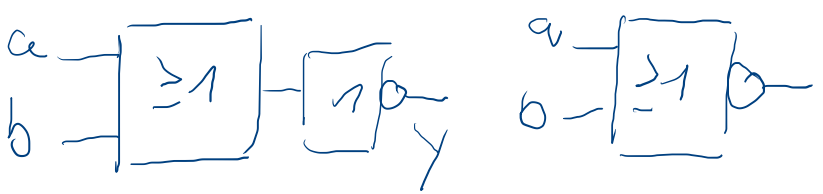


NICHT UND
(nand)

UND

b	a	y	
0	0	1	0
0	1	1	0
1	0	1	0
1	1	0	1

NICHT ODER
(nor)



ODER

b	a	y	
0	0	1	0
0	1	0	1
1	0	0	1
1	1	0	1