Boolesche Axiome

1. $A + B = B + A$
2. $A \cdot B = B \cdot A$
3. $A + (B + C) = (A + B) + C$
4. $A \cdot (B \cdot C) = (A \cdot B) \cdot C$
5. $A + (B \cdot C) = (A + B) \cdot (A + C)$
6. $A \cdot (B + C) = A \cdot B + A \cdot C$
7. $A + 0 = A$
8. $A \cdot 1 = A$
9. $A \cdot \overline{A} = 0$
10. $A + \overline{A} = 1$

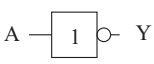
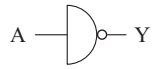
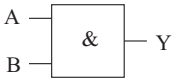
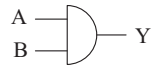
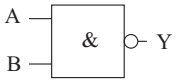
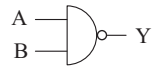
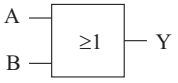
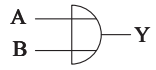
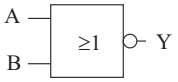
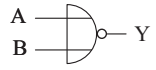
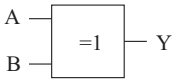
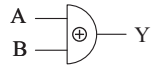
De Morgan'sche Regeln

11. $\overline{A \cdot B} = \overline{A} + \overline{B}$
12. $\overline{A + B} = \overline{A} \cdot \overline{B}$

Idempotenzgesetz/Absorptionsgesetz

13. $A + A = A$
14. $A \cdot A = A$
15. $A \cdot 0 = 0$
16. $A + 1 = 1$
17. $A + A \cdot B = A$
18. $A \cdot (A + B) = A$

$(A, B, C)\, \epsilon\, \{0, 1\}$ seien binäre Variablen.

Name	Funktion		Symbol		
			EN 60617-12	DIN 40700 (bis 1976)	US ANSI 91-1984
Inverter	$Y = \overline{A}$				
AND	$Y = A \cdot B$				
NAND	$Y = \overline{A \cdot B}$				
OR	$Y = A + B$				
NOR	$Y = \overline{A + B}$				
Antivalenz (XOR)	$Y = A \oplus B$ $= \overline{A} \cdot B + A \cdot \overline{B}$				
Äquivalenz (XNOR)	$Y = A \equiv B$ $= \overline{A} \cdot \overline{B} + A \cdot B$