

Rechenregeln der Schaltalgebra

1. $\overline{\overline{A}} = A$
2. $A \wedge A = A$
3. $A \vee A = A$
4. $\overline{A} \vee A = 1$
5. $\overline{A} \wedge A = 0$
 $A \wedge 0 = 0$
 $A \wedge 1 = A$
6. $A \vee 0 = A$
 $A \vee 1 = 1$
 $A \wedge B = B \wedge A$
7. $A \vee B = B \vee A$
8. $A \wedge (B \wedge C) = (A \wedge B) \wedge C = A \wedge B \wedge C$
 $A \vee (B \vee C) = (A \vee B) \vee C = A \vee B \vee C$
9. $A(B \vee C) = (AB) \vee (AC)$
 $A \vee (BC) = (A \vee B)(A \vee C)$
 $A(B \vee A) = A$
10. $A \vee (BA) = A$
 $\overline{\overline{AB}} = \overline{A} \vee \overline{B}$
11. $\overline{A \vee B} = \overline{A} \overline{B}$ (de Morgansche Regel)
12. $\overline{f(A, B, C, \dots, \wedge, \vee)} = f(\overline{A}, \overline{B}, \overline{C}, \dots, \vee, \wedge)$ (Shannonsche Regel)
13. $AD \vee BD \vee CD = D(A \vee B \vee C)$
14. $AB \vee \overline{AB} = A$
15. $(A \vee B)(A \vee \overline{B}) = A$
16. $A \vee \overline{AB} = A \vee B$
17. $A(\overline{A} \vee B) = AB$