Boole‘sche Algebra
Axiome und Theoreme

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#	Name	UND-Operator	ODER-Operator
1	Identität (Neutrale Elemente)	a ∧ 1 = a	a ∨ 0 = a
2	Elimination	a ∧ 0 = 0	a ∨ 1 = 1
3	Idempotenz	a ∧ a = a	a ∨ a = a
4	Involution	¬ (¬a) = a	
5	Inversion / Komplement	a ∧ ¬a = 0	a ∨ ¬a = 1
6	Kommutativität	a ∧ b = b ∧ a	a ∨ b = b ∨ a
7	Assoziativität	(a ∧ b) ∧ c = a ∧ (b ∧ c)	(a ∨ b) ∨ c = a ∨ (b ∨ c)
8	Distributivität	a ∧ (b ∨ c) = (a ∧ b) ∨ (a ∧ c)	a ∨ (b ∧ c) = (a ∨ b) ∧ (a ∨ c)
9	Vereinigung	(a ∨ b) ∧ (a ∨ ¬b) = a	(a ∧ b) ∨ (a ∧ ¬b) = a
10	Absorption	a ∧ (a ∨ b) = a	a ∨ (a ∧ b) = a
11	Absorption 2	(a ∧ ¬b) ∨ b = a ∨ b	(a ∨ ¬b) ∧ b = a ∧ b
12	Faktorisierung	(a ∨ b) ∧ (¬a ∨ c) = (a ∧ c) ∨ (¬a ∧ b)	(a ∧ b) ∨ (¬a ∧ c) = (a ∨ c) ∧ (¬a ∨ b)
13	Konsens	(a ∨ b) ∧ (b ∨ c) ∧ (¬a ∨ c) = (a ∨ b) ∧ (¬a ∨ c)	(a ∧ b) ∨ (b ∧ c) ∨ (¬a ∧ c) = (a ∧ b) ∨ (¬a ∧ c)
14	De Morgan	¬ (a ∧ b ∧ ...) = ¬a ∨ ¬b ∨ ...	¬ (a ∨ b ∨ ...) = ¬a ∧ ¬ b ∧ ...