

1a. $0.0 = 0$	1b. $1+1 = 1$
2a. $1.1 = 1$	2b. $0+0 = 0$
3a. $0.1 = 1.0 = 0$	3b. $1+0 = 0+1 = 1$
4a. If $x = 0$, then $\bar{x} = 1$	4b. If $x = 1$, then $\bar{x} = 0$

Table 1: Axioms of Boolean Algebra

5a. $x.0 = 0$	5b. $x+1 = 1$
6a. $x.1 = x$	6b. $x+0 = x$
7a. $x.x = x$	7b. $x+x = x$
8a. $x.\bar{x} = 0$	8b. $x+\bar{x} = 1$
9. $\bar{\bar{x}} = x$	

Table 2: Single-Variable Theorems

Commutative

10a. $x.y = y.x$	10b. $x+y = y+x$
------------------	------------------

Associative

11a. $x.(y.z) = (x.y).z$	11b. $x+(y+z) = (x+y)+z$
--------------------------	--------------------------

Distributive

12a. $x.(y+z) = x.y + x.z$	12b. $x + y.z = (x+y).(x+z)$
----------------------------	------------------------------

Absorption

13a. $x + x.y = x$	13b. $x.(x+y) = x$
--------------------	--------------------

Combining

14a. $x.y + x.\bar{y} = x$	14b. $(x+y).(x+\bar{y}) = x$
----------------------------	------------------------------

DeMorgan's theorem

15a. $\overline{x.y} = \bar{x}+\bar{y}$	15b. $\overline{x+y} = \bar{x}.\bar{y}$
---	---

16a. $x + \bar{x}.y = x + y$	16b. $x.(\bar{x}+y)$
------------------------------	----------------------

Table 3: Two- Three-Variable Properties