Basic

$a \mid 0 = a$
$a \mid 1 = 1$

$a \mid a = a$
$a \mid \sim a = 1$

$a \mid (a \,\&\, b) = a$
$a \,\&\, (a \mid b) = a$

$a \,\&\, 0 = 0$
$a \,\&\, 1 = a$

$a \,\&\, a = a$
$a \,\&\, \sim a = 0$

$a \wedge 0 = a$
$a \wedge 1 = \sim a$

$a \wedge a = 0$
$a \wedge \sim a = 1$

Associative Law

$$(a \mid b) \mid c = a \mid (b \mid c)$$

$$(a \,\&\, b) \,\&\, c = a \,\&\, (b \,\&\, c)$$

$$(a \wedge b) \wedge c = a \wedge (b \wedge c)$$

Commutative Law

$$a \mid b = b \mid a$$

$$a \,\&\, b = b \,\&\, a$$

$$a \wedge b = b \wedge a$$

Distributive Law

$$a \mid (b \,\&\, c) = (a \mid b) \,\&\, (a \mid c)$$

$$a \,\&\, (b \mid c) = (a \,\&\, b) \mid (a \,\&\, c)$$

$$a \,\&\, (b \,\hat{}\, c) = (a \,\&\, b) \,\hat{}\, (a \,\&\, c)$$

De Morgan's Law

$$\sim(a \,\&\, b) \;=\; \sim a \mid \sim b$$

$$\sim(a \mid b) \;=\; \sim a \,\&\, \sim b$$