

# Boolean Algebra

<b>Commutative Laws</b>	$A + B = B + A$	$A.B = B.A$
<b>Associative Laws</b>	$A + (B + C) = (A + B) + C$	$A.(B.C) = (A.B).C$
<b>Distributive Laws</b>	$A.(B + C) = (A.B) + (A.C)$ $(A + B).(A + C) = A + B.C$	$A + (B.C) = (A + B).(A + C)$
<b>Tautology/Idempotent Laws</b>	$A.A = A$	$A + A = A$
<b>Tautology/Identity Laws</b>	$1.A = A$	$0 + A = A$
<b>Tautology/Null Laws</b>	$0.A = 0$	$1 + A = 1$
<b>Tautology/Inverse Laws</b>	$A.\bar{A} = 0$	$A + \bar{A} = 1$
<b>Absorption Laws</b>	$A.(A + B) = A$ $A + A.B = A$	$A + (A.B) = A$ $A + \bar{A}.B = A + B$
<b>De Morgan's Laws</b>	$\overline{(A.B)} = \bar{A} + \bar{B}$	$\overline{(A + B)} = \bar{A}.\bar{B}$