

Identities of Boolean Algebra

Name	AND form	OR form
Identity Law	$1A = A$	$0+A = A$
Null Law	$0A = 0$	$1+A = 1$
Idempotent Law	$AA = A$	$A+A = A$
Inverse Law	$AA' = 0$	$A+A' = 1$
Commutative Law	$AB = BA$	$A+B = B+A$
Associative Law	$(AB)C = A(BC)$	$(A+B)+C = A+(B+C)$
Distributive Law	$A+BC = (A+B)(A+C)$	$A(B+C) = AB+AC$
Absorption Law	$A(A+B) = A$	$A+AB = A$
De Morgan's Law	$(AB)' = A'+B'$	$(A+B)' = A'B'$

$A+B = A \text{ OR } B$
 $A.B = A \text{ AND } B$
 $A' = \text{NOT}(A)$

Shaded identities do not apply to the algebra we know from school