

**TABLE 5 Boolean Identities.**

<i>Identity</i>	<i>Name</i>
$\overline{\overline{x}} = x$	Law of the double complement
$x + x = x$ $x \cdot x = x$	Idempotent laws
$x + 0 = x$ $x \cdot 1 = x$	Identity laws
$x + 1 = 1$ $x \cdot 0 = 0$	Domination laws
$x + y = y + x$ $xy = yx$	Commutative laws
$x + (y + z) = (x + y) + z$ $x(yz) = (xy)z$	Associative laws
$x + yz = (x + y)(x + z)$ $x(y + z) = xy + xz$	Distributive laws
$\overline{(xy)} = \overline{x} + \overline{y}$ $\overline{(x + y)} = \overline{x} \overline{y}$	De Morgan's laws
$x + xy = x$ $x(x + y) = x$	Absorption laws
$x + \overline{x} = 1$	Unit property
$x\overline{x} = 0$	Zero property

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Boolean Operator Precedence from highest to lowest:

Precedence	Operator	Notation
1	NOT	!, ', ~, -
2	AND	&&, &, $\wedge$ , $\cdot$
3	OR	,  , $\vee$ , +

Note: Parenthesis ( ) take the highest precedence.

Duals