DIGITAL LOGIC THEOREMS

Name	Theorem	
Identities	$X+0 = X$	$X \cdot 1 = X$
Complements	$X+X' = 1$	$X \cdot X' = 0$
Commutativity	$X+Y = Y+X$	$X \cdot Y = Y \cdot X$
Associativity	$(X+Y)+Z = X+(Y+Z)$	$(X \cdot Y) \cdot Z = X \cdot (Y \cdot Z)$
Distributivity	$X \cdot Y + X \cdot Z = X \cdot (Y+Z)$	$(X+Y) \cdot (X+Z) = X+Y \cdot Z$
DeMorgan's Theorems	$(X_1 \cdot X_2 \cdot \ldots \cdot X_n)' = X_1' + X_2' + \ldots + X_n'$	$(X_1 + X_2 + \ldots + X_n)' = X_1' \cdot X_2' \cdot \ldots \cdot X_n'$