Important Logical Equivalences

$p \wedge T \iff p$
$p \vee F \iff p$ Identity

$p \vee T \iff T$
$p \wedge F \iff F$ Domination

$p \vee p \iff p$
$p \wedge p \iff p$ Idempotent

$\neg(\neg p) \iff p$ Double negation

$p \vee q \iff q \vee p$
$p \wedge q \iff q \wedge p$ Commutative

$(p \vee q) \vee r \iff p \vee (q \vee r)$
$(p \wedge q) \wedge r \iff p \wedge (q \wedge r)$ Associative

$p \vee (q \wedge r) \iff (p \vee q) \wedge (p \vee r)$
$p \wedge (q \vee r) \iff (p \wedge q) \vee (p \wedge r)$ Distributive

$\neg(p \vee q) \iff \neg p \wedge \neg q$
$\neg(p \wedge q) \iff \neg p \vee \neg q$ DeMorgan's laws

$p \vee \neg p \iff T$
$p \wedge \neg p \iff F$
$p \rightarrow q \iff (\neg p \vee q)$ Useful Identities