Some Important Set Equivalences

Equivalence	Name
$A \cup \emptyset = A$	Identity Laws
$A \cap U = A$	
$A \cup U = U$	Domination Laws
$A \cap \emptyset = \emptyset$	
$A \cup A = A$	Idempotent Laws
$A \cap A = A$	
$\overline{\overline{A}} = A$	Complementation Law
$A \cup B = B \cup A$	Commutative Laws
$A \cap B = B \cap A$	
$A \cup (B \cup C) = (A \cup B) \cup C$	Associative Laws
$A \cap (B \cap C) = (A \cap B) \cap C$	
$A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$	Distributive Laws
$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$	
$\overline{A \cup B} = \overline{A} \cap \overline{B}$	De Morgan's Laws
$\overline{A \cap B} = \overline{A} \cup \overline{B}$	
$A \cup (A \cap B) = A$	Absorption Laws
$A \cap (A \cup B) = A$	
$A \cup \overline{A} = U$	Complement Laws
$A \cap \overline{A} = \emptyset$	