Set Identities

Identity	Name
$A \cap B = B \cap A$ $A \cup B = B \cup A$	**Commutative Laws**
$(A \cap B) \cap C = A \cap (B \cap C)$ $(A \cup B) \cup C = A \cup (B \cup C)$	**Associative Laws**
$A \cup (B \cap C) = (A \cup B) \cap (A \cup C)$ $A \cap (B \cup C) = (A \cap B) \cup (A \cap C)$	**Distributive Laws**
$A \cap U = A$ $A \cup U = U$	**Identity Law** **(intersection and Unition with Universal Set)**
$(A')' = A$	**Double Complement Laws**
$A \cap A = A$ $A \cup A = A$	**Idempotent Laws**
$(A \cap B)' = A' \cup B'$ $(A \cup B)' = A' \cap B'$	**De Morgan's Laws**
$A \cup (A \cap B) = A$ $A \cap (A \cup B) = A$	**Absorption Laws**
$A - B = A \cap B'$	**Set Difference Law**