



Chapter 1 Notation Reference Guide

Element	\in
Subset	\subset
Intersection	\cap
Union	\cup
Empty Set	\emptyset
Universal Set	\cup
Complement	A' (everything not in set A)
Disjoint	$A \cap B = \emptyset$ (Sets A and B are disjoint meaning there are no common elements among A and B)
Cartesian Product	$A \times B$ If set $A = \{a,b,c\}$ and set $B = \{d, e\}$ $A \times B$ or the Cartesian product of sets A and B will equal: $\{ (a, d), (a, e), (b, d), (b, e), (c, d), (c, e) \}$
deMorgan's laws	$(A \cup B)' = A' \cap B'$ $(A \cap B)' = A' \cup B'$
Inclusion-Exclusion	$n(A \cup B) = n(A) + n(B) - n(A \cap B)$