

## Essential Set Theory Definitions

Let  $A$  and  $B$  be sets.

$A \times B$  = Cartesian Product of  $A$  and  $B$

$A \cap B$  = Intersection of  $A$  and  $B$

$A \cup B$  = Union of  $A$  and  $B$

$A - B$  = Set difference of  $A$  and  $B$

$P(A)$  = Power Set of  $A$

$A^c = \bar{A}$  = Complement of  $A$

" $A \subseteq B$ " means " $A$  is a subset of  $B$ "

" $A = B$ " means " $A$  equals  $B$ "

$|A|$  = Cardinality of  $A$

( We will expand on some of these definitions later. )