

Set Theory

Basic Element-wise Definitions

" $x \in A \cup B$ " means " $x \in A$ or $x \in B$ ".

" $x \in A \cap B$ " means " $x \in A$ and $x \in B$ ".

" $x \in A - B$ " means " $x \in A$ and $x \notin B$ ".

" $(x, y) \in A \times B$ " means " $x \in A$ and $y \in B$ ".

" $A \subseteq B$ " means "if $x \in A$ then $x \in B$ ".

" $A = B$ " means " $A \subseteq B$ and $B \subseteq A$ ".