

Theorem (2.2.16c). *Let A and B be sets. $(A - B) \subseteq A$.*

Proof. Let x be an element in $A - B$. $A - B$ is equivalent to the statement $A \cap \overline{B}$, and thus by definition we have $(x \in A) \wedge (x \notin B)$. We can infer by the simplification rule that $x \in A$. It therefore follows immediately from the definition that $(A - B) \subseteq A$. ■