Theorem (2.2.37b)**.** *Let A be a subset of the universal set U. $A \oplus \emptyset = A$.*

Proof. By Theorem 2.2.35, $A \oplus \emptyset = (A \cup \emptyset) - (A \cap \emptyset)$. By set identity, and by set domination, that is $A - \emptyset$, which by Theorem 2.2.19 means $A \cap \overline{\emptyset}$. Because $\overline{\emptyset} = U$, we have by set identity that $A \oplus \emptyset = A$. ∎