Proposition 1. Let A, B, C be classes and f be a map of $A \times B$. Assume that $f(a, b) \in C$ for all $a \in A$ and all $b \in B$. Then f is a map from $A \times B$ to C.

Proposition 2. Let A, B, C be classes and f be a map from $A \times B$ to C. Let $a \in A$ and $b \in B$. Then $f(a, b) \in C$.