- **Definition.** Let **A** and **B** be categories enriched in a symmetric monoidal category **V**. Their *product* is a **V**-enriched category $\mathbf{A} \times \mathbf{B}$ with:

 - 1. $Ob_{A\times B} := Ob_A \times Ob_B;$ 2. $Hom_{A\times B} (\langle X, Y \rangle \cdot \langle X', Y' \rangle) := Hom_{A\times B} (X \cdot X') \otimes Hom_{B\times B} (Y \cdot Y')$
 - 2. $\operatorname{Hom}_{A\times B}\left(\langle X,Y\rangle;\langle X',Y'\rangle\right):=\operatorname{Hom}_{A}\left(X;X'\right)\otimes\operatorname{Hom}_{B}\left(Y;Y'\right)$, for two objects $\langle X,Y\rangle$ and $\langle X',Y'\rangle$ in $\operatorname{Ob}_{A\times B}$.