Various definitions

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January 26, 2024

Monoidal category: A category C equipped with

- A functor $\otimes : C \times C \to C$;
- unit object $I \in C$;
- associator: natural iso $(A \otimes B) \otimes C \xrightarrow{\alpha_{A,B,C}} A \otimes (B \otimes C)$;
- left unitor: natural iso $I \otimes A \xrightarrow{\lambda_A} A$;
- right unitor: natural iso $A \otimes I \xrightarrow{\rho_A} A$

satisfying triangle and pentagon equations.

- **Symmetric:** equipped with a natural iso $A \otimes B \xrightarrow{\sigma_{A,B}} B \otimes A$ such that $\sigma_{B,A} = \sigma_{A,B}^{-1}$.