

# Monoid-Graded Monoids in $\mathcal{C}$

$(E, 0, +)$

$$\eta : T \rightarrow M_0$$

$$M : E \rightarrow \mathcal{C} \quad \mu_{e_1, e_2} : M_{e_1} \otimes M_{e_2} \rightarrow M_{e_1 + e_2}$$

**A monoidal unit**

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**A monoidal multiplication**