

# Monoid-Graded Monads

$(E, 0, +)$

$$\eta : \text{Id} \rightarrow M_0$$

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

# Graded Monads

$$(E, \top, \otimes) \quad \eta : \text{Id} \rightarrow M_{\top}$$

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

