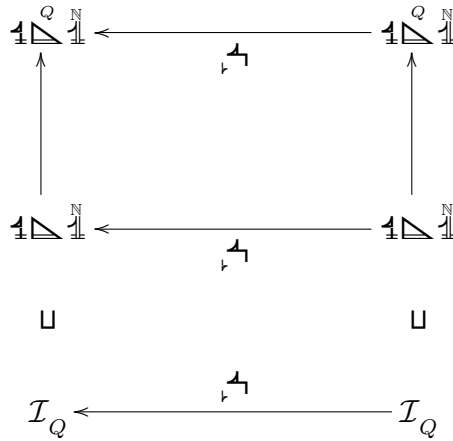


$\mathbb{1}$ abel

$$1 \in \mathbb{1} \text{ mod } \mathbb{1}$$

$$\triangleright \in \mathbb{1} = \text{Hom}(\mathbb{1}, \mathbb{1})$$



$$\triangleright \triangleleft \mathcal{I}_Q \subset \mathcal{I}_Q$$

$$\begin{aligned}
 \triangleright \triangleleft \underbrace{1 \times (1 \times 1 - 1Q1) \times 1'} &= \underbrace{\triangleright \triangleleft 1 \times (1 \times 1 - 1Q1) \times 1'}_{\in \mathcal{I}_Q} - \underbrace{1 \times (1 \times 1 - 1Q1) \times \triangleright \triangleleft 1'}_{\in \mathcal{I}_Q} \\
 &= 1 \times \underbrace{\triangleright \triangleleft (1 \times 1 - 1Q1) \times 1'}_{\in \mathcal{I}_Q} = 1 \times \underbrace{\triangleright \triangleleft 1 \times 1 + 1 \times \triangleright \triangleleft 1 - \triangleright \triangleleft 1Q1}_{\in \mathcal{I}_Q} \times 1' \\
 &\stackrel{\text{metr}}{=} 1 \times \underbrace{\triangleright \triangleleft 1 \times 1 + 1 \times \triangleright \triangleleft 1 - \triangleright \triangleleft 1Q1 - 1Q1 \triangleright \triangleleft 1}_{\in \mathcal{I}_Q} \times 1' \in \mathcal{I}_Q
 \end{aligned}$$

$$\underbrace{\triangleright \triangleleft 1 \times 1'}_Q = \underbrace{\triangleright \triangleleft 1 \times 1'}_Q + 1 \times \underbrace{\triangleright \triangleleft 1'}_Q$$

$$\underbrace{\underbrace{1}_r \times \underbrace{1}_r}_c = \underbrace{\underbrace{1}_r}_c \times 1 + c \times \underbrace{\underbrace{1}_r}_c$$

$$\mathcal{C} = \left\{ \begin{array}{l} c \in \mathbb{1}\mathbb{N}^{\mathbb{1}} \\ \underbrace{\underbrace{1}_r \times \underbrace{1}_r}_c = \underbrace{\underbrace{1}_r}_c \times 1 + c \times \underbrace{\underbrace{1}_r}_c \end{array} \right.$$

$$\underbrace{\underbrace{1}_r \times \underbrace{1}_r}_c = \underbrace{\underbrace{1}_r \times \underbrace{1}_r + \underbrace{1}_r}_c = \underbrace{\underbrace{1}_r \times \underbrace{1}_r + \underbrace{1}_r}_c = \underbrace{\underbrace{1}_r \times \underbrace{1}_r}_c = \underbrace{\underbrace{1}_r}_c \times 1 + 1 \times \underbrace{\underbrace{1}_r}_c \Rightarrow 1 \in \mathcal{C}$$

$$c \in \mathcal{C} \Rightarrow \underbrace{\underbrace{c \times c}_r \times \underbrace{1}_r}_c = \underbrace{\underbrace{c \times c}_r \times \underbrace{1}_r}_c =_{c \in \mathcal{C}} \underbrace{\underbrace{1}_r}_c \times \underbrace{\underbrace{c \times c}_r}_c + c \times \underbrace{\underbrace{1}_r \times \underbrace{c \times c}_r}_c$$

$$\underbrace{\underbrace{\underbrace{1}_r \times c}_c \times \underbrace{1}_r + c \times \underbrace{\underbrace{1}_r \times c}_c}_c = \underbrace{\underbrace{1}_r \times \underbrace{c \times c}_c}_c \times \underbrace{1}_r + \underbrace{c \times c}_c \times \underbrace{\underbrace{1}_r}_c \Rightarrow c \times c \in \mathcal{C} \Rightarrow \mathcal{C} = \mathbb{1}\mathbb{N}^{\mathbb{1}}$$