



$$h = h_1 \circ h_2$$

$$h = \begin{cases} h_1 \circ h_2 \\ \mathbb{1} \circ \mathbb{2} \end{cases}$$

$$h = \begin{cases} h_2 \circ h_1 \\ \mathbb{2} \circ \mathbb{1} \end{cases}$$

$$\bar{h} \xrightarrow{\eta} C | \bar{h} = C | \bar{h}^{\#}$$

$$h \star h' = h \circ \eta \circ h'$$

$$\mathbb{2}_h = h \circ \mathbb{1} = \begin{cases} h_1 \circ \eta \circ h_2 \\ \mathbb{2} \circ \eta \circ \mathbb{1} \end{cases} = \overline{\mathbb{1} \circ \eta \circ \mathbb{1}}$$

$$h \star_h h' = \begin{cases} h_1 \circ h_2 \star h'_1 \circ h'_2 = \overline{h_1 \circ \eta \circ h'_1} \circ h_2 \circ h'_2 = h_1 \circ \eta \circ h'_1 \circ h_2 \circ h'_2 = h_1 \circ \eta \circ h'_1 \circ h_2 \circ h'_2 \\ \mathbb{2} \circ h_2 \star \mathbb{2} \circ h'_2 = \overline{\mathbb{2} \circ \eta \circ \mathbb{2}} \circ h_2 \circ h'_2 = \mathbb{2} \circ \eta \circ \mathbb{2} \circ h_2 \circ h'_2 \end{cases}$$