

$$\begin{array}{ccc}
 M & \xRightarrow{\text{un}M} & M \circ M \\
 & \searrow & \downarrow \text{mu} \\
 & & M
 \end{array}$$

Diagram illustrating a commutative triangle involving the monoid multiplication  $\mu$  and the comultiplication  $\text{un}$ . The top horizontal arrow is labeled  $\text{un}M$ . The bottom horizontal arrow is labeled  $\text{id}_M$ . The vertical arrow is labeled  $\mu$ .

$$\begin{array}{ccc}
 M & \xRightarrow{M\text{un}} & M \circ M \\
 & \searrow & \downarrow \text{mu} \\
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 \end{array}$$

Diagram illustrating a commutative triangle involving the monoid multiplication  $\mu$  and the comultiplication  $\text{un}$ . The top horizontal arrow is labeled  $M\text{un}$ . The bottom horizontal arrow is labeled  $\text{id}_M$ . The vertical arrow is labeled  $\mu$ .