

$$\begin{array}{ccc}
 T \circ T \circ T & \xrightarrow{id_T * \mu} & T \circ T \\
 \downarrow \mu * id_T & & \downarrow \mu \\
 T \circ T & \xrightarrow{\mu} & T
 \end{array}$$

$$\begin{array}{ccccc}
 T & \xrightarrow{\eta * id_T} & T \circ T & \xleftarrow{id_T * \eta} & T \\
 & \searrow id_T & \downarrow \mu & \swarrow id_T & \\
 & & T & &
 \end{array}$$