

$$\begin{array}{ccccc}
 & \text{Hom}(Y', X) \otimes Y & & & Y \\
 \text{Hom}(f, X) \otimes \text{id}_Y \swarrow & & \searrow \text{id}_{\text{Hom}(Y', X)} \otimes f & & \downarrow f \\
 \text{Hom}(Y, X) \otimes Y & & \text{Hom}(Y', X) \otimes Y' & & Y' \\
 \searrow \text{eval}_{X, Y} & & \swarrow \text{eval}_{X, Y'} & & \\
 & X & & &
 \end{array}$$