

$$\begin{array}{ccc}
 \mathbf{C}(X, Y) \otimes \mathbf{C}(Y, Y) & \xrightarrow{\text{ei}_{X, Y, Y}} & \mathbf{C}(X, Y) \\
 \text{id}_{\mathbf{C}(X, Y)} \otimes \text{em}_Y \uparrow & \nearrow \text{ru} & \text{ei}_{X, X, Y} \leftarrow \mathbf{C}(X, X) \otimes \mathbf{C}(X, Y) \\
 \mathbf{C}(X, Y) \otimes \mathbf{1} & & \mathbf{1} \otimes \mathbf{C}(X, Y) \\
 & \nwarrow \text{lu} & \uparrow \text{em}_X \otimes \text{id}_{\mathbf{C}(X, Y)}
 \end{array}$$