

$$\begin{array}{ccc}
 \mathbf{1}_{\mathbf{D}} \otimes_{\mathbf{D}} F(X) & \xrightarrow{\text{iso} \otimes_{\mathbf{D}} \text{Id}_{F(X)}} & F(\mathbf{1}_{\mathbf{C}}) \otimes_{\mathbf{D}} F(X) \\
 \downarrow \text{lu}_{\mathbf{D}} & & \downarrow \mu_{\mathbf{1}_{\mathbf{C}}, X} \\
 F(X) & \xleftarrow{F(\text{lu}_X^{\mathbf{C}})} & F(\mathbf{1}_{\mathbf{C}} \otimes_{\mathbf{C}} X)
 \end{array}$$

$$\begin{array}{ccc}
 F(X) \otimes_{\mathbf{D}} \mathbf{1}_{\mathbf{D}} & \xrightarrow{\text{Id}_{F(X)} \otimes_{\mathbf{D}} \text{iso}} & F(X) \otimes_{\mathbf{D}} F(\mathbf{1}_{\mathbf{C}}) \\
 \downarrow \text{ru}_{\mathbf{D}} & & \downarrow \mu_{X, \mathbf{1}_{\mathbf{C}}} \\
 F(X) & \xleftarrow{F(\text{ru}_X^{\mathbf{C}})} & F(X \otimes_{\mathbf{C}} \mathbf{1}_{\mathbf{C}})
 \end{array}$$