

$$Y \xrightarrow{\text{id}_Y \otimes \eta_X} Y \otimes X \otimes X^\vee \xrightarrow{f \otimes \text{id}_{X^\vee}} Z \otimes X \otimes X^\vee \xrightarrow{\text{id}_Z \otimes \text{br}} Z \otimes X^\vee \otimes X \xrightarrow{\text{id}_Z \otimes \epsilon_X} Z$$