

$$\begin{array}{c}
 \text{id}_Y \otimes \text{coev} \xrightarrow{\quad} Y \otimes X \otimes X^v \xrightarrow{\quad} Z \otimes X \otimes X^v \xrightarrow{\quad} Z \otimes X^v \otimes X \xrightarrow{\quad} Z \\
 \text{id}_Y \otimes \text{ev} \xrightarrow{\quad} Y \otimes X \otimes X^v \xrightarrow{\quad} Z \otimes X \otimes X^v \xrightarrow{\quad} Z \otimes X^v \otimes X \xrightarrow{\quad} Z
 \end{array}$$

The diagram illustrates a sequence of tensor products and maps between vector spaces. The objects are  $Y$ ,  $X$ ,  $X^v$ , and  $Z$ . The maps are represented by blue arrows. The first map is  $\text{id}_Y \otimes \text{coev}$ , the second is  $\text{id}_Y \otimes \text{ev}$ , the third is  $f \otimes \text{id}_v$ , the fourth is  $\text{id}_z \otimes \text{br}$ , and the fifth is  $\text{id}_z \otimes \text{ev}$ . The objects  $Y$ ,  $X$ , and  $Z$  are shown in red, while  $X^v$  is in black. The maps  $\text{coev}$ ,  $\text{ev}$ , and  $\text{br}$  are in blue, green, and blue respectively. The tensor product symbol  $\otimes$  is in purple.