

$$\text{left contra } \mathbb{1} \nabla_{\square} \left\{ \begin{array}{l} \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_{n+1} \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_n \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_1 \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_0 \xleftarrow{\text{inj}} \mathbb{1} \\ = \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C}} \xleftarrow{\text{res}} \mathbb{1} \end{array} \right.$$

$$\square^b \text{ left cov} \left\{ \begin{array}{l} \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_{n+1} \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_n \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_1 \xleftarrow{\partial} \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_0 = \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}} \xleftarrow{\text{inj}} \mathbb{1}^b \\ \mathbb{1} \nabla_{\square} = \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_{n+1} = \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_n \lrcorner \mathbb{1} \nabla_{\square} \underbrace{\mathbb{K} \mathbb{N} \mathbb{C} \mathbb{V} \mathbb{C}}_n \end{array} \right.$$