

$$\begin{array}{ccc}
 & & \mathcal{C}(X_1, Y_1) \\
 & & \downarrow \mathcal{C}(f, g) \\
 \begin{array}{c} X_1 \\ f \uparrow \\ X_2 \end{array} & \begin{array}{c} Y_1 \\ \downarrow g \\ Y_2 \end{array} & \xrightarrow{\mathcal{C}(-, -)} \\
 & & \mathcal{C}(X_2, Y_2)
 \end{array}$$