

$$\begin{array}{ccccc}
 A & & F(A) & \begin{array}{c} \xrightarrow{\eta_A} \\ \xRightarrow{\varepsilon_A} \end{array} & G(A) \\
 \downarrow f & & \downarrow F(f) & & \downarrow G(A) \\
 B & & F(B) & \begin{array}{c} \xrightarrow{\eta_B} \\ \xRightarrow{\varepsilon_B} \end{array} & G(B)
 \end{array}$$