

$$\begin{array}{ccc}
 F(x) & \longrightarrow & F(y) \\
 \varphi_x \downarrow & & \downarrow \varphi_y \\
 G(\Gamma(x)) & \longrightarrow & G(\Gamma(y))
 \end{array}$$

$$\begin{array}{ccc}
 G(x) & \longrightarrow & G(y) \\
 \psi_x \downarrow & & \downarrow \psi_y \\
 F(K(x)) & \longrightarrow & F(K(y))
 \end{array}$$