

$$\begin{array}{ccccc}
 Y_1 & \xrightarrow{j_1} & X_1 & \xrightarrow{r_1} & Y_1 \\
 \downarrow f' & & \downarrow f & & \downarrow f' \\
 Y_2 & \xrightarrow{j_2} & X_2 & \xrightarrow{r_2} & Y_2
 \end{array}$$