

$$\begin{array}{ccccccc}
& & K_2 & \xlongequal{\quad} & K_2 & & \\
& & \downarrow & & \downarrow & & \\
K_1 & \hookrightarrow & X & \xrightarrow{b_1} & Y_1 & \twoheadrightarrow & C_1 \\
& \parallel & \downarrow a_1 & & \downarrow a_2 & & \parallel \\
K_1 & \hookrightarrow & Y_2 & \xrightarrow{b_2} & Z & \twoheadrightarrow & C_1 \\
& & \downarrow & & \downarrow & & \\
& & \Downarrow & & \Downarrow & & \\
& & C_2 & \xlongequal{\quad} & C_2 & &
\end{array}$$