

$$\begin{array}{ccccccc}
A_1 & \xrightarrow{\quad f_A \quad} & A_2 & \xrightarrow{\quad g_A \quad} \twoheadrightarrow & A_3 & \xrightarrow{\quad \delta_A \quad} & \\
\parallel & & \downarrow i_2 & & \downarrow y & & \\
A_1 & \xrightarrow[\quad i_2 f_A \quad]{} & B_2 & \xrightarrow{\quad x \quad} & E & \xrightarrow{\quad \eta \quad} & \\
& & \downarrow p_2 & & \downarrow z & & \\
& & \twoheadrightarrow & & & & \\
& & C_2 & \xlongequal{\quad} & C_2 & & \\
& & \downarrow \varepsilon_2 & & \downarrow (g_A)_* \varepsilon_2 & & 
\end{array}$$