$$\begin{array}{ccc}
\{\bullet\} \times A & \xrightarrow{\lambda_A} & A \\
\downarrow{\scriptstyle 1 \times f} & & \downarrow{\scriptstyle f} \\
\{\bullet\} \times A' & \xrightarrow{\lambda_{A'}} & A'
\end{array}
\qquad
\begin{array}{ccc}
A \times \{\bullet\} & \xrightarrow{\rho_A} & A \\
\downarrow{\scriptstyle f \times 1} & & \downarrow{\scriptstyle f} \\
A' \times \{\bullet\} & \xrightarrow{\rho_{A'}} & A'
\end{array}$$