

$$\begin{array}{ccccc}
 & & \phi & & \\
 & & \curvearrowright & & \\
 \psi \circ \phi \hookrightarrow G & & & H & \hookleftarrow \phi \circ \psi \\
 & & \curvearrowleft & & \\
 & & \psi & &
 \end{array}$$