

$$\begin{array}{ccc}
 G_i & \xrightarrow{\varphi_i} & G \\
 & \searrow & \downarrow h \\
 & & G'
 \end{array}$$

Diagram illustrating a commutative square involving groups  $G_i$ ,  $G$ , and  $G'$ .

The horizontal map is  $\varphi_i: G_i \rightarrow G$ .

The vertical map is  $h: G \rightarrow G'$ .

The diagonal map is  $\varphi'_i: G_i \rightarrow G'$ .