

$$\begin{array}{ccccc}
 1 & \xrightarrow{\quad \mathbb{Z}/|G|\mathbb{Z} \xrightarrow{\sim} A^G/N_G A \quad} & & & u_G \\
 \downarrow & \text{res}' \downarrow & & \downarrow \text{res}'' & \downarrow \\
 1 & \xrightarrow{\quad \mathbb{Z}/|H|\mathbb{Z} \longrightarrow A^H/N_H A \quad} & & & u_H
 \end{array}$$

The diagram illustrates a commutative structure involving two rows of objects and three vertical maps. The top row consists of the identity element 1 , the quotient $\mathbb{Z}/|G|\mathbb{Z}$, an isomorphism $\xrightarrow{\sim}$ to $A^G/N_G A$, and the element u_G . The bottom row consists of the identity element 1 , the quotient $\mathbb{Z}/|H|\mathbb{Z}$, a map \longrightarrow to $A^H/N_H A$, and the element u_H . Vertical maps connect the rows: res' from $\mathbb{Z}/|G|\mathbb{Z}$ to $\mathbb{Z}/|H|\mathbb{Z}$, res'' from $A^G/N_G A$ to $A^H/N_H A$, and an unlabeled map from u_G to u_H . Curved arrows also connect the identity elements 1 to u_G and 1 to u_H in the top and bottom rows, respectively.