























Figure 1 shows a sequence of 10 diagrams illustrating the action of the operator β^1 on the quotient space $\mathbb{Z}/3\{\beta \iota_3\}$. The diagrams are arranged in a grid with two rows and five columns. The vertical axis is labeled $\mathbb{Z}/3$ and the horizontal axis is labeled \mathbb{Z} . The diagrams are labeled with the corresponding elements and the action of β^1 .

- Diagram 1 (top left): 1
- Diagram 2 (top middle-left): $\iota_3 \xrightarrow{\beta^1} \beta \iota_3$
- Diagram 3 (top middle-right): $\iota_3 \beta \iota_3 \xrightarrow{\beta^1} P^1 \beta \iota_3$ and $P^1 \iota_3 \xrightarrow{\beta^1} \beta P^1 \iota_3$
- Diagram 4 (top right): $(\beta \iota_3)^2 \xrightarrow{\beta^1} \beta P^1 \beta \iota_3$
- Diagram 5 (bottom left): $\mathbb{Z}\{1\}$
- Diagram 6 (bottom middle-left): $\mathbb{Z}/3\{\beta \iota_3\}$
- Diagram 7 (bottom middle-right): $\mathbb{Z}/3\{\beta(\iota_3 \beta \iota_3)\}$
- Diagram 8 (bottom right): $\mathbb{Z}/3\{\beta P^1 \beta \iota_3\}$
- Diagram 9 (bottom far right): $\mathbb{Z}/3\{\beta P^1 \iota_3\}$
- Diagram 10 (bottom far right): $\mathbb{Z}/3\{\beta P^1 \iota_3\}$











