

Reading Questions 16

page 88: Definition 4.9

page 88: Definition 4.10

1. A regular action is a group action.
2. A translation action is a group action for a group G acting on itself.
3. Let G be a group and let H be a subgroup of G . Write the translation action.

Section 4.1 Group Actions (Part 2)

More Examples

P 1. Let $G = Z_4$. Use the regular action to compute $2 \cdot 3$.

P 2. Let $H \leq G$ such that $h \in H$ and $g \in G$. Does $h \cdot g = gh$ define a group action for H acting on G ?

P 3. Does $g \cdot h = g^{-1}h$ define a group action for G on G ?

P 4. Let $G = Z_6$. Let $H = \langle 3 \rangle$ and $g = 2$. Write the elements of gHg^{-1} .