

Group	Operation	Comments
$(\mathbb{Z}, +)$	addition	canonical model, cyclic
$(\mathbb{Q}, +)$	addition	
$(\mathbb{R}, +)$	addition	
$(\mathbb{C}, +)$	addition	
$(M_{n \times m}(R), +)$	addition	$(R \in \{\mathbb{Z}, \mathbb{Q}, \mathbb{R}, \mathbb{C}, \mathbb{Z}_n\})$
(\mathbb{R}^*, \cdot)	multiplication	
(\mathbb{Q}^*, \cdot)	multiplication	
(\mathbb{C}^*, \cdot)	multiplication	
$(\{z : z = 1\}, \cdot)$	multiplication	
$(\{z : z^n = 1, n \in \mathbb{N}\}, \cdot), n \text{ fixed}$	multiplication	finite, cyclic
$(\{z : z^n = 1, n \in \mathbb{N}\}, \cdot)$	multiplication	
(\mathbb{Z}_n, \oplus)	addition	finite, cyclic
(\mathbb{Z}_p^*, \odot)	multiplication	finite, cyclic
$(GL(2, R), \cdot)$	multiplication	non-abelian $(R \in \{\mathbb{Z}, \mathbb{Q}, \mathbb{R}, \mathbb{C}, \mathbb{Z}_n\})$
$(SL(2, R), \cdot)$	multiplication	non-abelian $(R \in \{\mathbb{Z}, \mathbb{Q}, \mathbb{R}, \mathbb{C}, \mathbb{Z}_n\})$
$(\left\{ \begin{bmatrix} \pm 1 & 0 \\ 0 & \pm 1 \end{bmatrix} \right\}, \cdot)$	multiplication	finite, abelian
$(Sym(\Delta), \circ)$	composition	finite, non-abelian
$(Sym(\square), \circ)$	composition	finite, abelian
(D_4, \circ)	composition	finite, non-abelian
$(S_n, \circ), n = 2$	composition	finite, abelian, cyclic
$(S_n, \circ), n > 2$	composition	finite, non-abelian
$(A_n, \circ), n = 2, 3$	composition	finite, abelian, cyclic
$(A_n, \circ), n > 3$	composition	finite, non-abelian