

1.18: Center

The **center** (or **centre**) of a group G is the set $Z(G) = \{ a \text{ in } G : a*g = g*a \text{ for all } g \text{ in } G \}$ of elements commuting with all elements of G . The center is an Abelian group.

The center of a group G is always a normal subgroup of G , namely the kernel of the homomorphism mapping an element a of G to the inner automorphism $f_a: g \rightarrow aga^{-1}$.

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