



ON CONGRUENCE PERMUTABLE G -SETS

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Abstract

An algebraic structure is said to be congruence permutable if its arbitrary congruences α and β satisfy the equation $\alpha \circ \beta = \beta \circ \alpha$, where \circ denotes the usual composition of binary relations. For an arbitrary G -set X with $G \cap X = \emptyset$, we define a semigroup $(G, X, 0)$ with a zero 0 ($0 \notin G \cup X$), and give necessary and sufficient conditions for the congruence permutability of the G -set X by the help of the semi-group $(G, X, 0)$.

Keywords and phrases: G -sets, congruence permutable algebras, semi-groups.

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