

TRANSFORMATION SEMIGROUPS ASSOCIATED TO Γ -SEMIGROUPS

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Abstract

The concept of Γ -semigroups is a generalization of semigroups. In this paper, we associate two transformation semigroups to a Γ -semigroup and we call them the left and right transformation semigroups. We prove some relationships between the ideals of a Γ -semigroup and the ideals of its left and right transformation semigroups. Finally, we study some relationships between Green's equivalence relations of a Γ -semigroup and its left (right) transformation semigroup.

Keywords: transformation semigroup, Γ -semigroup, Green's relations.

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