

APPLICATION OF (m, n) - Γ -HYPERIDEALS IN CHARACTERIZATION OF LA- Γ -SEMIHYPERGROUPS

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Abstract

In this paper, we study the concept of ordered (m, n) - Γ -hyperideals in an ordered LA- Γ -semihypergroup. We show that if (S, Γ, \circ, \leq) is a unitary ordered LA- Γ -semihypergroup with zero 0 and satisfies the hypothesis that it contains no non-zero nilpotent (m, n) - Γ -hyperideals and if $R(L)$ is a 0-minimal right (left) Γ -hyperideal of S , then either $(R \circ \Gamma \circ L) = \{0\}$ or $(R \circ \Gamma \circ L)$ is a 0-minimal (m, n) - Γ -hyperideal of S . Also, we prove that if (S, Γ, \circ, \leq) is a unitary ordered LA- Γ -semihypergroup; A is an (m, n) - Γ -hyperideal of S and B is an (m, n) - Γ -hyperideal of A such that B is idempotent, then B is an (m, n) - Γ -hyperideal of S .

Keywords: LA-semihypergroups, (m, n) - Γ -hyperideals, ordered LA- Γ -semihypergroups.

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