

γ -RADICALS OF GAMMA RINGS

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Abstract

Let M be a weak Nobusawa Γ -ring and γ be a nonzero element of Γ . The main focus of this work is to find out new properties for the structure of Γ -ring M . For this reason, we define γ -Lie ideals of Γ -ring M and investigate commutativity conditions for M with derivation. We also define some γ -radicals of the Γ -ring M and show these radicals are strictly weaker than the radicals of M in the literature.

Keywords: gamma ring, prime Γ -ring, k -derivation, commutativity, γ -radical.

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