

LEFT ANNIHILATOR OF IDENTITIES WITH
GENERALIZED DERIVATIONS IN PRIME
AND SEMIPRIME RINGS

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Abstract

Let R be a noncommutative prime ring of char $(R) \neq 2$, F a generalized derivation of R associated to the derivation d of R and I a nonzero ideal of R . Let $S \subseteq R$. The left annihilator of S in R is denoted by $l_R(S)$ and defined by $l_R(S) = \{x \in R \mid xS = 0\}$. In the present paper, we study the left annihilator of the sets $\{F(x) \circ_n F(y) - x \circ_n y \mid x, y \in I\}$ and $\{F(x) \circ_n F(y) - d(x \circ_n y) \mid x, y \in I\}$.

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