

INTISARI

KEKOMUTATIFAN RING PRIMA TERHADAP *GENERALIZED* *REVERSE DERIVATION* DAN IDEAL SATU SISI

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Diberikan ring prima R dan *reverse derivation* $d : R \rightarrow R$. Pemetaan aditif $F : R \rightarrow R$ disebut *generalized reverse derivation* yang berasosiasi dengan *reverse derivation* d jika memenuhi $F(xy) = F(y)x + yd(x)$ untuk setiap $x, y \in R$. Pada tugas akhir ini dibahas kekomutatifan ring prima R terhadap suatu kondisi yang melibatkan *generalized reverse derivation* dan ideal satu sisi pada R serta pemetaan $G : R \rightarrow R$. Secara khusus, pada tugas akhir ini diberikan syarat-syarat cukup supaya ring prima R merupakan ring komutatif. Syarat-syarat cukup yang diberikan melibatkan konsep komutator, anti-komutator, dan pusat ring prima R .

ABSTRACT

COMMUTATIVITY OF PRIME RINGS WITH *GENERALIZED REVERSE DERIVATION* AND ONE SIDED IDEALS

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Let R be a prime ring and a *reverse derivation* $d : R \rightarrow R$. An additive mapping $F : R \rightarrow R$ associated with a *reverse derivation* d of R is called a *generalized reverse derivation* if $F(xy) = F(y)x + yd(x)$ for all $x, y \in R$. In this final project, the commutativity of the prime ring R is discussed regarding a condition involving *generalized reverse derivation* on a one-sided ideals of R and a mapping $G : R \rightarrow R$. In particular, this final project ensures sufficient conditions for a prime ring R is a commutative ring. These sufficient conditions involve the concepts of commutator, anti-commutator, and the center of prime ring R .