ABSTRACT

Master's Thesis

COMMUTATİVİTY OF PRIME RİNGS WITH DERİVATION

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Followed in this work, we summarised some of the papers that those have some commutativity conditions in a prime rings with derivation of characteristic not 2 and some results that given for Lie ideals have been applied to (σ, τ)- Lie ideals. The plan followed as below:

Some fundamental properties about rings have been given in Chapter 1. In chapter 2., some papers that search commutativity conditions on prime and semiprime rings with derivation have been summarized. Under the condition that R is prime ring of characteristic not 2, σ and τ are automorphisms of R, some results for Lie ideals of R, we applied to (σ, τ)- Lie ideals of R also in this part. We give some examples under conditions fiting or not fitting to the hypotesis of theorems and study whether if theorems can be weakened or not. In chapter 3., we have been considered generalizations over a theorem that proved first by Herstein.

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Key Words :

Prime ring, Lie ideal, (σ, τ)- Lie ideal, derivation