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IDEALS IN A REGULAR RING

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Abstract

The present paper attempts to discuss the impact of (Von Neumann) regularity of a ring on some of the other concepts of a ring. The impact is most pronounced in case of ideals. Some of these interrelations motivate further generalizations of the concept of (Von Neumann) regularity. It may be pointed out here that the behaviour pattern of ideals indicates that (Von Neumann) regularity may also be visualized as a generalization of the classical semi simple ring concept due to Wedderburn, Artin and others. To begin with, let us observe that the ideals in a Von Neumann regular ring are necessarily idempotent. Recall that a ring R is called (Von Neumann) regular if for every a ε R there exists x ε R such that a x a = a.

Key Words and Phrases : Principal ideal, Regular ring, Idempotent.

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