

SPECIAL ELEMENTS IN SMARANDACHE RINGS

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In this dissertation a study of special elements like Smarandache units, Smarandache zero divisors, Smarandache idempotents and Smarandache nilpotents of a ring are carried out. Examples of these notions are given to make these concepts. The absence of S -zero divisors leads to the notion of S -integral domains and S -division ring. It is shown Z_4 is an S -integral domain which is clearly not an integral domain. S -reduced rings are analyzed. Z_{12} is not a reduced ring. Several Smarandache concepts are studied in this dissertation.

This dissertation has three chapters. Chapter one is introductory in nature. Chapter two gives introduction to Smarandache rings. Special elements and special properties of Smarandache rings are studied in chapter three. This dissertation mainly makes use of the book *Smarandache Rings* authored by W.B. Vasantha published by the American Research Press.