

**A NOVEL GENERALIZATION OF INT-SOFT
QUASI-HYPERIDEALS OF ORDERED SEMIHYPERGROUPS**

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ABSTRACT. Soft set theory is an effective method for solving problems of uncertainties. The main purpose of this article, is to study ordered semihypergroups in the context of (M, N) -int-soft quasi-hyperideals. In this paper, we introduce the concept of (M, N) -int-soft quasi-hyperideals of ordered semihypergroups. We investigate various properties of (M, N) -int-soft quasi-hyperideals in ordered semihypergroups. We show that every (M, N) -int-soft quasi-hyperideal is an (M, N) -int-soft bi-hyperideal. In regular ordered semihypergroups the concepts of (M, N) -int-soft quasi-hyperideals and (M, N) -int-soft bi-hyperideals coincide. Finally, we characterize regular ordered semihypergroups by means of (M, N) -int-soft quasi-hyperideals.

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