S-SEMIRINGS AND ITS PROPERTIES

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A Smarandache semiring (S-semiring) $S$ is a semiring such that a proper subset $B$ of $S$ is a semifield. It easily follows from the definition that every semiring in general need not be a S-semiring. We prove all distributive lattices with 0 and 1, and having more than two elements are S-semirings. Thus the class of S-semirings is nonempty. We define substructures in semirings and notions like S-commutative semirings S-ideals in semirings and study them. We prove that if $S$ is a S-semiring if $P$ is a S-dual ideal then $P$ need not be a S-ideal. We further define the notion of S-semidivision ring and obtain some interesting results about them.