

DISTRIBUTIVE LATTICES OF t - k -ARCHIMEDEAN SEMIRINGS*

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Abstract

A semiring S in \mathbb{SL}^+ is a t - k -Archimedean semiring if for all $a, b \in S$, $b \in \sqrt{Sa} \cap \sqrt{aS}$. Here we introduce the t - k -Archimedean semirings and characterize the semirings which are distributive lattice (chain) of t - k -Archimedean semirings. A semiring S is a distributive lattice of t - k -Archimedean semirings if and only if \sqrt{B} is a k -ideal, and S is a chain of t - k -Archimedean semirings if and only if \sqrt{B} is a completely prime k -ideal, for every k -ideal B of S .

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