FOLDING THEORY OF IMPLICATIVE AND OBSTINATE IDEALS IN BL-ALGEBRAS

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Abstract

In this paper, the concepts of n -fold implicative ideals and n -fold obstinate ideals in BL -algebras are introduced. With respect to this concepts, some related results are given. In particular, it is proved that an ideal is an n -fold implicative ideal if and only if is an n -fold Boolean ideal. Also, it is shown that a BL -algebra is an n -fold integral BL -algebra if and only if trivial ideal $\{0\}$ is an n -fold obstinate ideal. Moreover, the relation between n -fold obstinate ideals and n -fold (integral) obstinate filters in BL -algebras are studied by using the set of complement elements. Finally, it is proved that ideal I of BL -algebra L is an n -fold obstinate ideal if and only if $\frac{L}{I}$ is an n -fold obstinate BL -algebra.

Keywords: BL -algebra, ideal, n -fold implicative ideal, n -fold obstinate ideal.

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