SELECTED PROPERTIES OF SOME GENERALIZATIONS OF BCK ALGEBRAS

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Abstract

The notion of a RM algebra, introduced recently, is a generalization of many other algebras of logic. The class of RM algebras contains (weak-)BCC algebras, BCH algebras, BCI algebras, BCK algebras and many others. A RM algebra is an algebra $\mathcal{A} = (A; \rightarrow, 1)$ of type $(2, 0)$ satisfying the identities: $x \rightarrow x = 1$ and $1 \rightarrow x = x$. In this paper we study the set of maximal elements of a RM algebra, branches of a RM algebra and moreover translation deductive systems of a RM algebra giving so called the Representation Theorem for RM algebras.

Keywords: RM algebra, deductive system.

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