

Essential Variables and Separable Sets in Universal Algebra

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Abstract

The study of essential and strongly essential variables in functions defined on finite sets is a part of k -valued logic. We extend the main definitions from functions to terms. This allows us to apply concepts and results of Universal Algebra. On the basis of the concept of a separable set of variables in a term we introduce a new notion of complexity of terms, algebras and varieties and give examples.

key words: term, polynomial, essential variable, complexity of a term, complexity of an algebra

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