AN INVESTIGATION INTO THE RELATIONSHIPS BETWEEN LOGICAL OPERATIONS

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ABSTRACT

Booleanalgebra (logical operations) is the backbone of computer software and hardware systems. Investigating new relationships between logical operations may help designing new computer algorithms. In this paper we propose to investigate the inverse relationships between the Exclusive-OR and Equivalence functions for three, four and five- variable functions. In addition, we propose to investigate the inverse relationships between the Inhibition and Implication functions for three and four-variable functions.