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Predicate Calculus for Boolean Valued Functions. Part VII

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Summary. In this paper, we proved some elementary predicate calculus formulae containing the quantifiers of Boolean valued functions with respect to partitions. Such a theory is an analogy of usual predicate logic.

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The articles [10], [9], [2], [12], [13], [1], [11], [14], [7], [8], [3], [5], [4], and [6] provide the notation and terminology for this paper.

The following proposition is true

(1) Let Y be a non empty set, a be an element of $Boolean^Y$, G be a subset of PARTITIONS(Y), A, B, C be partitions of Y, and z, u be elements of Y. Suppose G is independent and $G = \{A,B,C\}$ and $A \neq B$ and $B \neq C$ and $C \neq A$ and EqClass(z,C) = EqClass(u,C). Then EqClass$(u,$CompF$(A,G))$ meets EqClass$(z,$CompF$(B,G))$.

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