

ON SETS RELATED TO MAXIMAL CLONES

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Abstract

For an arbitrary h -ary relation ρ we are interested to express n -clone $Pol^n \rho$ in terms of some subsets of the set of all n -ary operations $O^n(A)$ on a finite set A , which are in general not clones but we can obtain $Pol^n \rho$ from these sets by using intersection and union. Therefore we specify the concept a function preserves a relation and moreover, we study the properties of this new concept and the connection between these sets and $Pol^n \rho$. Particularly we study $R_{a,b}^{n,k}$ for arbitrary partial order relations, equivalence relations and central relations.

Keywords: operations preserving relations, clones, semigroups.

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