

A Note on Finite Heyting Algebras with Involution

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Abstract: This note is devoted to Heyting algebras with involution, i.e. the automorphism of order two. Using the one-to-one correspondence between the set of all congruences of a Heyting algebra with involution and the set of all involutive filters of the algebra, we prove that any finite Heyting algebras with involution is quasi-primal. Combining the well-known result of R. W. Quackenbush, namely the characterization of injective algebras in varieties generated by quasi-primal algebras in terms of Boolean powers, and our description of Boolean powers of quasi-primal algebras with lattice reducts, we prove that injectives in the variety, generated by a finite Heyting algebra A are diagonal subalgebras of some direct power of A , which are complete as lattice.