Meeting: 999, Nashville, Tennessee, SS 4A, Special Session on Universal Algebra and Lattice Theory

999-06-92 **G. Grätzer*** (`gratzer@ms.umanitoba.ca`), 336 Machray Hall, University of Manitoba, Winnipeg, MB R3T 2N2, Canada, and **H. Lakser**. *Sectionally complemented lattices and congruence restrictions.*

The authors proved in 1986 that for the finite distributive lattices D and E, with $|D| > 1$, and for the $\{0, 1\}$-homomorphism φ of D into E, there exists a finite lattice L and an ideal I of L such that $D \cong \operatorname{Con} L$, $E \cong \operatorname{Con} I$, and φ is represented by the restriction map.

In their recent survey of finite congruence lattices, G. Grätzer and E. T. Schmidt ask whether this result can be improved by requiring that L be sectionally complemented. We provide an affirmative answer.

The key to the solution is to generalize the 1960 sectional complement of G. Grätzer and E. T. Schmidt from finite posets to quasi ordered sets. (Received August 13, 2004)