

SEMILATTICES WITH SECTIONAL MAPPINGS

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Abstract

We consider join-semilattices with 1 where for every element p a mapping on the interval $[p, 1]$ is defined; these mappings are called sectional mappings and such structures are called semilattices with sectional mappings. We assign to every semilattice with sectional mappings a binary operation which enables us to classify the cases where the sectional mappings are involutions and / or antitone mappings. The paper generalizes results of [3] and [4], and there are also some connections to [1].

Keywords: semilattice, sectional mapping, antitone mapping, switching mapping, involution.

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