

On semirings satisfying the Baer criterion

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Abstract

It is well-known that for modules over rings the Baer injectivity criterion takes place. In this paper we prove that under one additional condition this criterion is also valid for modules over semirings. We prove that a semiring S satisfies the Baer criterion if and only if all injective (with respect to one-sided ideals of S) semimodules satisfy the above condition. We propose a new method for constructing semirings satisfying the Baer criterion. © 2013 Allerton Press, Inc.

<http://dx.doi.org/10.3103/S1066369X13030031>

Keywords

Baer criterion, injective semimodule, Keywords and phrases: semiring