BASIC MODULE THEORY FOR GENERAL RINGS

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Abstract.

Introduction

We consider here associative rings which do not necessarily have an identity element, and we call them general rings. Our purpose is to construct a theory of modules over general rings which is reasonably simple and, at the same time, is a direct extension of the usual module theory for rings with identity. We show that this is indeed feasible, so that most of the elementary results of the module theory of rings with identity are but particularizations of the results of the theory of modules over general rings; the noteworthy exceptions being those results depending upon the existence of enough finitely presented objects, something that cannot be guaranteed in our setting for general rings.

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References

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