

Abstract

Let M be a left R -module, where R is a commutative ring with identity.

A proper submodule N of M is called small ($N \ll M$), if $N + K = M$ where K is a submodule of M implies $K = M$. Zhou and Zhang in [5] introduced a new type of small submodule namely e -small submodule and give some basic properties of this kind of submodules.

This research consists of four sections. In section one we introduce some basic definitions and properties which we will need them in other sections.

In section two definition of an essential submodule given with its examples and properties.

In section three we study the concept of small submodule with some of its important properties.

In section four the properties of e -small submodule and the behavior of it studied in certain class of module.