



Math for the people, by the people.

faithful module

Canonical name	FaithfulModule
Date of creation	2013-03-22 12:01:35
Last modified on	2013-03-22 12:01:35
Owner	antizeus (11)
Last modified by	antizeus (11)
Numerical id	7
Author	antizeus (11)
Entry type	Definition
Classification	msc 16D80
Synonym	fully faithful module

Let R be a ring, and let M be an R -module. We say that M is a *faithful* R -module if its annihilator $\text{ann}_R(M)$ is the zero ideal.

We say that M is a *fully faithful* R -module if every nonzero R -submodule of M is faithful.