



planetmath.org

Math for the people, by the people.

Nakayama's lemma

Canonical name	NakayamasLemma
Date of creation	2013-03-22 13:07:41
Last modified on	2013-03-22 13:07:41
Owner	n3o (216)
Last modified by	n3o (216)
Numerical id	6
Author	n3o (216)
Entry type	Theorem
Classification	msc 13C99

Let R be a commutative ring with 1. Let M be a finitely generated R -module. If there exists an ideal \mathfrak{a} of R contained in the Jacobson radical and such that $\mathfrak{a}M = M$, then $M = 0$.