

planetmath.org

Math for the people, by the people.

nullity

Canonical name Nullity

Date of creation 2013-03-22 12:24:06 Last modified on 2013-03-22 12:24:06

Owner rmilson (146) Last modified by rmilson (146)

Numerical id 6

Author rmilson (146) Entry type Definition Classification msc 15A03

Related topic RankLinearMapping Related topic RankNullityTheorem

The *nullity* of a linear mapping is the dimension of the mapping's kernel. For a linear mapping $T:V\to W$, the nullity of T gives the number of linearly independent solutions to the equation

$$T(v) = 0, \quad v \in V.$$

The nullity is zero if and only if the linear mapping in question is injective.