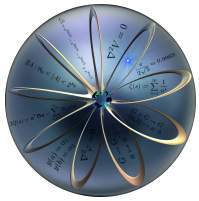

planetmath.org

Math for the people, by the people.

algebraic independence of elementary symmetric polynomials

Canonical name	AlgebraicIndependenceOfElementarySymmetricPolynomials
Date of creation	2013-03-22 14:49:11
Last modified on	2013-03-22 14:49:11
Owner	mclase (549)
Last modified by	mclase (549)
Numerical id	5
Author	mclase (549)
Entry type	Theorem
Classification	msc 05E05

Theorem. *Let $s_1, s_2, \ldots, s_n$ be the elementary symmetric polynomials in n variables $t_1, t_2, \ldots, t_n$ over a commutative ring R. Then $s_1, s_2, \ldots, s_n$ are algebraically independent elements of $R[t_1, t_2, \ldots, t_n]$ over R.*