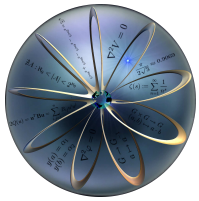

planetmath.org

Math for the people, by the people.

symmetric polynomial

Canonical name	SymmetricPolynomial
Date of creation	2013-03-22 12:08:55
Last modified on	2013-03-22 12:08:55
Owner	djao (24)
Last modified by	djao (24)
Numerical id	7
Author	djao (24)
Entry type	Definition
Classification	msc 13B25
Classification	msc 12F10

A polynomial $f \in R[x_1, \ldots, x_n]$ in n variables with coefficients in a ring R is *symmetric* if $\sigma(f) = f$ for every permutation σ of the set $\{x_1, \ldots, x_n\}$.

Every symmetric polynomial can be written as a polynomial expression in the elementary symmetric polynomials.