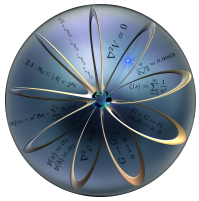

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T-ideal

Canonical name	Tideal
Date of creation	2013-03-22 14:21:12
Last modified on	2013-03-22 14:21:12
Owner	CWoo (3771)
Last modified by	CWoo (3771)
Numerical id	7
Author	CWoo (3771)
Entry type	Definition
Classification	msc 16R10

Let R be a commutative ring and $R\langle X\rangle$ be a free algebra over R on a set X of *non-commuting* variables. A two-sided ideal I of $R\langle X\rangle$ is called a T-*ideal* if $\phi(I) \subseteq I$ for any R-endomorphism ϕ of $R\langle X\rangle$.

For example, let A be a R-algebra. Define $\mathcal{T}(A)$ to be the set of all `http://planetmath.org/PolynomialIdentityAlgebra`polynomial identities $f \in R\langle X\rangle$ for A. Then $\mathcal{T}(A)$ is a T-ideal of $R\langle X\rangle$. $\mathcal{T}(A)$ is called the T-*ideal of* *of* A.