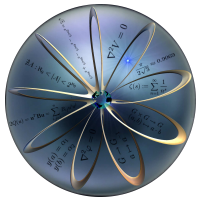

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algebraic

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Defines	transcendental

Let B be a ring with a subring A. An element $x \in B$ is *algebraic* over A if there exist elements $a_1, \ldots, a_n \in A$, with $a_n \neq 0$, such that

$$a_n x^n + a_{n-1} x^{n-1} + \cdots + a_1 x + a_0 = 0.$$

An element $x \in B$ is *transcendental* over A if it is not algebraic.

The ring B is *algebraic* over A if every element of B is algebraic over A.