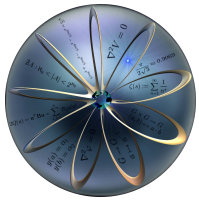

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algebraic equation

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Defines	degree of equation

The equation

$$f(x_1, x_2, ..., x_m) = 0,$$

where the left hand is a polynomial in $x_1, x_2, \ldots, x_m$ with coefficients in a certain field, is called an *algebraic equation* over that field. Often the field in question is $\mathbb{Q}$; then the coefficients may be assumed to be integers.

By the *degree* of an algebraic equation is meant the degree of the polynomial.

E.g. $3x^2 - 1 = 0$ and $x^3 + x^2y + xy^2 + y^3 = 0$ are algebraic equations over the field $\mathbb{Q}$, the degrees of which are 2 and 3.