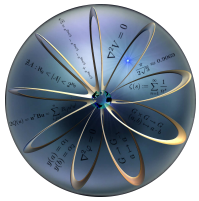

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integral

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Let B be a ring with a subring A. We will assume that A is contained in the center of B (in particular, A is commutative). An element $x \in B$ is *integral* over A if there exist elements $a_0, \ldots, a_{n-1} \in A$ such that

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

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