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integral closure

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Defines	ring of integers

Let B be a ring with a subring A . The *integral closure* of A in B is the set $A' \subset B$ consisting of all elements of B which are integral over A .

It is a theorem that the integral closure of A in B is itself a ring. In the special case where $A = \mathbb{Z}$, the integral closure A' of \mathbb{Z} is often called the *ring of integers* in B .