



Math for the people, by the people.

primitive ideal

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Entry type	Definition
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Synonym	primitive ring

Let R be a ring, and let I be an ideal of R . We say that I is a *left (right) primitive ideal* if there exists a simple left (right) R -module X such that I is the annihilator of X in R .

We say that R is a *left (right) primitive ring* if the zero ideal is a left (right) primitive ideal of R .

Note that I is a left (right) primitive ideal if and only if R/I is a left (right) primitive ring.