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socle

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Related topic SemisimpleGroup

Let M be a left (or right) R-module. The socle of M, denoted by $\mathrm{Soc}(M)$, is the sum of all simple (or minimal) submodules of M. If M has no simple submodules, then $\mathrm{Soc}(M) := (0)$.

A left (or right) R-module M is semisimple iff Soc(M) = M.