

## necessary and sufficient condition for diagonalizability

 ${\bf Canonical\ name} \quad {\bf Necessary And Sufficient Condition For Diagonalizability}$ 

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Author Mathprof (13753)

Entry type Theorem Classification msc 15A04 Let k be a field, V a vector space over k of dimension n, and  $T \in \operatorname{End}(V)$ . Then T is diagonalizable if and only if its http://planetmath.org/MinimalPolynomialEndomorph polynomial has no multiple roots and all its roots lie in k.