

isdiagonal() — Whether matrix is diagonal

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Description

`isdiagonal(A)` returns 1 if A has only zeros off the principal diagonal and returns 0 otherwise. `isdiagonal()` may be used with either real or complex matrices.

Syntax

real scalar `isdiagonal(numeric matrix A)`

Remarks and examples

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See [\[M-5\] diag\(\)](#) for making diagonal matrices out of vectors or out of nondiagonal matrices; see [\[M-5\] diagonal\(\)](#) for extracting the diagonal of a matrix into a vector.

Conformability

`isdiagonal(A)`:
 $A: r \times c$
 result: 1×1

Diagnostics

`isdiagonal(A)` returns 1 if A is void.

Also see

[\[M-5\] diag\(\)](#) — Create diagonal matrix

[\[M-5\] diagonal\(\)](#) — Extract diagonal into column vector

[\[M-4\] utility](#) — Matrix utility functions