

## 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

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*:  $1 \times 1$

## 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

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