isrealvalues() — Whether matrix contains only real values

Description

isrealvalues(\(X\)) returns 1 if \(X\) is of storage type real or if \(X\) is of storage type complex and all elements are real or missing; 0 is returned otherwise.

Syntax

\[
\text{real scalar \hspace{1cm} isrealvalues(numeric matrix } X)\]

Remarks and examples

isrealvalues(\(X\)) is logically equivalent to \(X==\text{Re}(X)\) but is significantly faster and requires less memory.

Conformability

isrealvalues(\(X\)):
\[
\begin{align*}
X & : \quad r \times c \\
\text{result} & : \quad 1 \times 1
\end{align*}
\]

Diagnostics

isrealvalues(\(X\)) returns 1 if \(X\) is void and complex.

Also see

[M-5] isreal() — Storage type of matrix
[M-4] Utility — Matrix utility functions