Re() — Extract real or imaginary part

Description

Re(Z) returns a real matrix containing the real part of Z. Z may be real or complex.

Im(Z) returns a real matrix containing the imaginary part of Z. Z may be a real or complex. If Z is real, Im(Z) returns a matrix of zeros.

Syntax

\[
real \ matrix \quad Re(\ numeric \ matrix \ Z)
\]

\[
real \ matrix \quad Im(\ numeric \ matrix \ Z)
\]

Conformability

\[
Re(Z), \ Im(Z):
\]
\[
Z: \quad r \times c
\]
\[
result: \quad r \times c
\]

Diagnostics

Re(Z), if Z is real, literally returns Z and not a copy of Z. This makes execution of Re() applied to real arguments instant.

Also see

[M-5] C() — Make complex

[M-4] Scalar — Scalar mathematical functions

[M-4] Utility — Matrix utility functions