

Re() — Extract real or imaginary part

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Description

$\text{Re}(Z)$ returns a real matrix containing the real part of Z . Z may be real or complex.

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

Syntax

real matrix $\text{Re}(\text{numeric matrix } Z)$

real matrix $\text{Im}(\text{numeric matrix } Z)$

Conformability

$\text{Re}(Z)$, $\text{Im}(Z)$:

Z :	$r \times c$
<i>result</i> :	$r \times c$

Diagnostics

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

Also see

[\[M-5\] C\(\)](#) — Make complex

[\[M-4\] scalar](#) — Scalar mathematical functions

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