

Re() — Extract real or imaginary part

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Syntax

real matrix `Re(numeric matrix Z)`

real matrix `Im(numeric matrix Z)`

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.

Conformability

`Re(Z)`, `Im(Z)`:

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

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