

abs() — Absolute value (length)

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Syntax

real matrix `abs(`*numeric matrix Z*`)`

Description

For Z real, `abs(Z)` returns the elementwise absolute values of Z .

For Z complex, `abs(Z)` returns the elementwise length of each element. If $Z = a + bi$, returned is `sqrt($a^2 + b^2$)`, although the calculation is not made in that way. The method actually used prevents overflow.

Conformability

`abs(Z)`:

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

Diagnostics

`abs(.)` returns . (missing).

Also see

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