## Description

$\operatorname{sqrt}(Z)$ returns the elementwise square root of $Z$.

## Syntax

numeric matrix sqrt (numeric matrix $Z$ )

## Conformability

sqrt ( $Z$ )
$\begin{array}{rlr}Z: & & r \times c \\ \text { result }: & & r \times c\end{array}$

## Diagnostics

sqrt $(Z)$ returns missing when $Z$ is real and $Z<0$; that is, sqrt $(-4)=$. but sqrt $(-4+0 i)=$ 2i.

## Also see

[M-5] cholesky () - Cholesky square-root decomposition
[M-4] Scalar - Scalar mathematical functions

Stata, Stata Press, and Mata are registered trademarks of StataCorp LLC. Stata and Stata Press are registered trademarks with the World Intellectual Property Organization of the United Nations. StataNow and NetCourseNow are trademarks of StataCorp LLC. Other brand and product names are registered trademarks or trademarks of their respective companies. Copyright (c) 1985-2023 StataCorp LLC, College Station, TX,
 USA. All rights reserved.
For suggested citations, see the FAQ on citing Stata documentation.

