| sign() — Sign and complex quadrant functions | |
|--|--|
|--|--|

Description Syntax Conformability Diagnostics Also see

Description

sign(R) returns the elementwise sign of R. sign() is defined

| Argument range | <pre>sign(arg)</pre> |
|--|--|
| $arg \ge .$ arg < 0 arg = 0 arg > 0 | $\begin{array}{c} \cdot \\ -1 \\ 0 \\ 1 \end{array}$ |
| | |

quadrant(Z) returns a real matrix recording the quadrant of each complex entry in Z. quadrant() is defined

| Argument range | | |
|----------------------------|----------------------------|--------------------------|
| Re(arg) | Im(arg) | <pre>quadrant(arg)</pre> |
| | | |
| $\operatorname{Re} \geq .$ | | |
| $\operatorname{Re} = 0$ | Im = 0 | • |
| $\operatorname{Re} > 0$ | $\operatorname{Im} \geq 0$ | 1 |
| $\text{Re} \leq 0$ | $\mathrm{Im} > 0$ | 2 |
| $\operatorname{Re} < 0$ | $\mathrm{Im} \leq 0$ | 3 |
| $\operatorname{Re} \ge 0$ | $\mathrm{Im} < 0$ | 4 |
| | | |

quadrant(1+0i)==1, quadrant(-1+0i)==3
quadrant(0+1i)==2, quadrant(0-1i)==4

Syntax

real matrix sign(real matrix R)

real matrix quadrant(complex matrix Z)

Conformability

Diagnostics

sign(R) returns missing when R is missing.

quadrant (Z) returns missing when Z is missing.

Also see

- [M-5] dsign() FORTRAN-like DSIGN() function
- [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 © 1985–2025 StataCorp LLC, College Station, TX, USA. All rights reserved.



For suggested citations, see the FAQ on citing Stata documentation.