Title

> **dsign( ) —** FORTRAN-like DSIGN( ) function

Syntax

> *real scalar*   dsign(*real scalar a*, *real scalar b*)

Description

dsign(*a*, *b*) returns *a* with the sign of *b*, defined as |*a*| if $b \geq 0$ and $-|a|$ otherwise.

This function is useful when translating FORTRAN programs.

The in-line construction

        (*b* >=0 ? abs(*a*) : -abs(*a*))

is clearer. Also, differentiate carefully between what dsign() returns (equivalent to the above construction) and signum(*b*)*abs(*a*), which is almost equivalent but returns 0 when *b* is 0 rather than abs(*a*). (Message: dsign() is not one of our favorite functions.)

Conformability

dsign(*a*, *b*):
            a: 1×1
            b: 1×1
       result: 1×1

Diagnostics

dsign(., *b*) returns . for all *b*.

dsign(*a*, .) returns abs(*a*) for all *a*.

Also see

[M-5] **sign( )** — Sign and complex quadrant functions

[M-4] **scalar** — Scalar mathematical functions