

dsign() — FORTRAN-like DSIGN() function
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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

$$(b \geq 0 ? \text{abs}(a) : -\text{abs}(a))$$

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.)

Syntax

real scalar `dsign(real scalar a, real scalar b)`

Conformability

`dsign(a, b):`

<i>a</i> :	1×1
<i>b</i> :	1×1
<i>result</i> :	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

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