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

### Syntax

```plaintext
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 ≥ 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