(e) nextafter(x, y) returns the next representable neighbor of x in the direction toward y. If x = y, or either x or y is in the projective mode or a NaN, then x is returned.

(f) finite(x) returns the value TRUE if \(-\infty < x < +\infty \) and returns FALSE otherwise.

(g) isnan(x), or equivalently x ≠ x, returns the value TRUE if x is a NaN and returns FALSE otherwise.

(h) \(x < y\) is TRUE only when \(x < y\) or \(x > y\), and is distinct from \(x \neq y\), which means NOT \((x = y)\) and is never an invalid operation.

(i) unordered(x, y) returns the value TRUE if x is unordered with y and returns FALSE otherwise; this is never an invalid operation.

**Preliminary—Subject to Revision**

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**Errata—**

**An Implementation Guide to a Proposed Standard for Floating-Point Arithmetic**

The changes to Jerome T. Coonen's article in the January 1980 issue of *Computer* (pp. 68-79) are of two types. Those marked (E) correct errors, while the others, marked (U), bring the guide up to date with the most recent draft of the proposal.

(U) Introduction, para. 2, line 2: Replace Draft 5.11 with Draft 8.0. Also update the footnote ** to refer to the March 1981 issue of Computer.

(U) §1.1, under Rounding Modes: Delete line (A) and the label "(B)" since all rounding modes are required now.

(E) Table 1: In the formula for represented denormalized numbers the exponent of 2 is incorrect. The correct formula is

\[ ( -1)^i \times 2^e \times \text{Bias} + 1 \times (L.F). \]

(U) §1.5, paragraph beginning An implementation of . . . : That first sentence should be shortened to An implementation of the standard shall support all four rounding modes.

(U) §1.12: Readers should note that the implementation guide uses unnormalized in its traditional sense, that is, describing any number whose leading significant digit is 0; thus denormalized numbers are simply those unnormalized numbers whose exponent is the format's minimum. On the other hand, Draft 8.0 restricts the word unnormalized to apply only to numbers whose leading significant bit is zero but which are not denormalized.

(E) §2.7: The special case test

If either operand is an unnormal zero then proceed as in c; otherwise,

should be removed from §e and inserted at the beginning of §f, h, i. Thus \(f\) begins simply Compute.

(E) §2.8: The Exception clause of §b, c, f should be changed to Exception: If in \(b\), \(Y\) is unnormal zero, proceed as in a.

(E) §2.9: In §b, c replace unnormal zero by unnormalized. To §f append Normalize Z and check for underflow.

(E) §2.14, para. 1: The sentence beginning An implementation of . . . should be shortened to An implementation of the standard shall support all four rounding modes.

(E) §2.17: The last word of clause (l) should be changed from enabled to disabled.

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