

Corrigendum

["What Every Computer Scientist Should Know About Floating-Point Arithmetic" by David Goldberg, *ACM Computing Surveys* 23, 1 (March 1991), 5-48.]

page 11: The first paragraph should begin:

To avoid confusion between exact and computed values, the following notation is used. Whereas $x - y$ denotes the exact difference of x and y , $x \ominus y$ denotes the computed difference (i.e., with rounding error).

page 11: The second paragraph should begin:

Although $(x \ominus y) \otimes (x \oplus y)$ is an excellent approximation of $x^2 - y^2$, the floating-point numbers x and y might themselves be approximations . . .

page 12: Equation 8 should read:

$$\begin{aligned} &(\text{SQRT}(a \oplus (b \oplus c)) \otimes (c \ominus (a \ominus b))) \\ &\otimes (c \oplus (a \ominus b)) \otimes (a \oplus (b \ominus c))) \\ &\quad \neq 4. \end{aligned}$$

page 30: The last two sentences in the third paragraph should read:

In the IEEE model, we can prove that $(3.0/10.0) * 10.0$ evaluates to 3 (Theorem 7). In Brown's model, we cannot.

page 32: The sixth sentence in the second paragraph should read:

In the case of 1.0^∞ , when $f(x) = 1$ and $g(x) = 1/x$ the limit approaches 1, but when $f(x) = 1 - x$ and $g(x) = 1/x$ the limit is e^{-1} .

The following authors' names were incorrectly spelled in the references:

Kulish should be Kulisch
Sterbetz should be Sterbenz.

The following citation should be added to the references:

NELSON, G., 1991 (Ed). *Systems Programming With Modula-3*. Prentice-Hall, Englewood Cliffs, N.J.

We apologize for any inconvenience these errors may have caused.