A propos my editorial note to [2], there is only one further case in this extension (if I did it correctly). For $n = 2539004$, multiplication (mod n) is isomorphic to multiplication (mod $n + 1$). That is a much more stringent requirement; I do not know if anyone has made a heuristic estimate of whether there are infinitely many such n.

D. S.

1. M. LAL & P. GILLARD, "On the equation $\phi(n) = \phi(n + k)$," *Math. Comp.*, v. 26, 1972, pp. 579–583.
2. KATHRYN MILLER, UMT 25, *Math. Comp.*, v. 27, 1973, pp. 447–448.

3 [9].—B. D. BEACH, H. C. WILLIAMS & C. R. ZARNKE, *Some Computer Results on Units of Quadratic and Cubic Fields*, Scientific Report 31, University of Manitoba, Winnipeg, July 1971.

The table in the appendix lists the class number H and fundamental unit ϵ_0 $(0 < \epsilon_0 < 1)$ of the pure cubic fields $Q(\rho)$ where $\rho = D^{1/3}$. For each cube-free D between 2 and 998 there is listed $H, U, V, W, T,$ and J where

(1) $$\epsilon_0 = (U + V\rho + W\rho^2)/T$$

and J is the length of the period of Voronoi's algorithm. The largest U here is a 330-decimal number for $D = 951$ where $H = 1$. Here, $J = 1352$, and for large U one finds that $J/\log_{10} U \approx 4.1$. Presumably, the mean value of this ratio is analogous to Lévy's constant but its identity is not known to me. The largest H equals 162 here for $D = 813$. Some fields are given twice: e.g., $Q((12)^{1/3}) = Q((18)^{1/3})$ and so its ϵ_0 is given in two forms. Happily, the H then agree—in all cases that I checked.

A direct comparison with Wada's units to $D = 249$, see [1], is not possible since Wada gives the reciprocal $\epsilon = 1/\epsilon_0 = (A + B\rho + C\rho^2)/E$ instead. It is of some interest to argue which unit is preferable. Usually, U, V, W have only one-half the decimals of A, B, C; for example, for $D = 239$, U has 94 decimals while A has 188. But for applications, ϵ is usually preferable. Thus, in evaluating the regulator $R = |\log \epsilon_0|$, the formula (1) can suffer catastrophic loss of significance since ϵ_0 may be exceedingly small. Of course, one can obtain ϵ from ϵ_0 by

$$\epsilon = (U^2 - DVW) + (W^2D - UV)\rho + (V^2 - UW)\rho^2$$

if $T = 1$. So, for such large $U, V, W, R = \log (3U^2 - 3DVW)$ will be very accurate.

The text describes Voronoi's algorithm and refers to earlier, less extensive tables by Markov, Cassels, Selmer, etc.

D. S.

1. H. WADA, RMT 15, *Math. Comp.*, v. 26, 1972, pp. 302–303.