ACTA ARITHMETICA
114.4 (2004)

Correction to "A note on the existence of certain infinite families of imaginary quadratic fields"

(Acta Arith. 110 (2003), 37–43)

by

IWAO KIMURA (Toyama City)

In the author's paper [2], the proof of the Lemma is incomplete because one cannot deduce $l \nmid H(b)$. The author wishes to express his hearty thanks to Kartik Prasanna who pointed out this issue.

We add the above condition as an assumption of the Theorem, so the third sentence of the Theorem should read: "Take an integer $b > 0$ which satisfies the following conditions: $-b$ is a fundamental discriminant, $l \nmid h(\mathbb{Q}(\sqrt{-b}))$, $(-b/q) = 0, 1, -1$ according as $q \in S_0, S_+, S_-$ respectively".

The existence of such a negative fundamental discriminant is shown by Horie [1] for sufficiently large prime l, so the first line of the Corollary in [2] should read: "Let l be a sufficiently large prime".

In many cases, for given l, S_0, S_+, S_-, a negative fundamental discriminant $-b$ that satisfies the conditions stated in the Theorem can be found by a numerical computation. For example, in the case $l = 5$, $S_0 = \{11\}$ considered in the Remark, $-b = -11$ satisfies those conditions. The correction thus does not affect the conclusion of the Remark.

References

[1] K. Horie, *Trace formulae and imaginary quadratic fields*, Math. Ann. 288 (1990), 605–612.

[2] I. Kimura, *A note on the existence of certain infinite families of imaginary quadratic fields*, Acta Arith. 110 (2003), 37–43.

Department of Mathematics, Faculty of Science, Toyama University
Gofuku 3190, Toyama City, Toyama 930-0885, Japan
E-mail: iwao@sci.toyama-u.ac.jp

Received on 22.9.2003 (4632)

2000 *Mathematics Subject Classification*: Primary 11R29; Secondary 11R11.