CORRECTION: “A NOTE ON THE EXISTENCE OF CERTAIN INFINITE FAMILIES OF IMAGINARY QUADRATIC FIELDS”

IWAO KIMURA

In the author’s paper [1], the proof of the lemma is incomplete because one cannot deduce \( l \nmid H(b) \). The author wish to express his hearty thanks to the individual who pointed out this issue.

The author add this condition as an assumption of the theorem, so the second line of the theorem, “Take an integer \( b > 0 \) which satisfies the following conditions: \(-b\) is a fundamental discriminant, \((-b/q) = 0, 1, -1\) according as \( q \in S_0, S_+, S_- \) respectively” should be read as “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 negative fundamental discriminant is shown by Horie [2] for sufficiently large prime \( l \), thus the first line of the corollary “Let \( l > 3 \) be an odd prime” should be read as “Let \( l \) be a sufficiently large prime”.

One can, for given \( l, S_0, S_+, S_- \), find such negative fundamental discriminant \(-b\) that satisfies the coditions stated in the theorem by a numerical computation in many cases. For example, in the case \( l = 5, S_0 = \{11\} \) stated in the remark, \(-b = -11\) satisfies the condition. The correction thus does not affect the conclution of the remark.

References


Department of Mathematics, Faculty of Science, Toyama University, Gofuku 3190, Toyama city, Toyama 930–0885, Japan.

E-mail address: iwao@sci.toyama-u.ac.jp