Typographical Errors in the Second Edition of

*Primes of the Form $x^2 + ny^2$*

August 13, 2018

Page v, line −8: The title of §1 should be “FERMAT, EULER AND QUADRATIC RECIPROCITY”

Page 30, first line of (2.21): “15.23” should be “15, 23”

Page 32, line 2 of Theorem 2.26: “not dividing $D$.” should be “not dividing $D$,” (the period should be a comma)

Page 48, line −13: “ker($\chi$) ∈ ($\mathbb{Z}/D\mathbb{Z}$)*” should be “ker($\chi$) ⊂ ($\mathbb{Z}/D\mathbb{Z}$)*”

Page 53, line −1: “property” should be “properly”

Page 61, part (a) of Exercise 3.9: “if and only if $a, b$ or $ab$ has order $\leq 2$ in $G$” should be “if and only if $a$ or $b$ has order $\leq 2$ in $G$”

Page 65, part (c) of Exercise 3.20: “$f(\alpha x + \beta y, \gamma x + \delta y)$” should be “$f(\alpha x + \gamma y, \beta x + \delta y)$”

Page 65, lines −2 and −1: “Note also that Lemma 3.25 gives a very quick proof of Exercise 2.27” should be “Note that Lemma 3.25 gives a quick proof of Exercise 2.27(a) for forms of discriminant $-4n$ when $p \nmid n$”

Page 75, line 18: “the second memoir. Gauss” should be “the second memoir, Gauss” (the period should be a comma)

Page 91, lines −4 and −3: “$f_i(x)$ are distinct and irreducible modulo $p$” with “$f_i(x)$ are monic, and distinct and irreducible modulo $p$”

Page 104, part (f) of Exercise 5.6: “$p\mathcal{O}_L + f_i(\alpha)\mathcal{O}_K$” should be “$p\mathcal{O}_L + f_i(\alpha)\mathcal{O}_L$”

Page 105, part (d) of Exercise 5.7: It should be “Prove the description of $\mathcal{O}_K$ given in (5.14)”

Page 125, line −12: “let $a$ be a fractional” should be “let $a$ be a proper fractional”

Page 133, four lines below (7.26): “$u \in \mathcal{O}$” should be “$u \in \mathcal{O}_K$”
Page 133, line −4: “[b][c]−1” should be “±[b][c]−1”

Page 138, part (c) of Exercise 7.15, line 4: “dividing by a by c” should be “dividing a by c”

Page 143, line 1: “let f be a positive integer” should be “let f > 1 be an integer.”

Page 155, lines −18 and −17: “But Exercise 5.9 tells us” should be “But [77, Exercise 4.11(b)] tells us”

Page 161, Exercise 8.16, line 2: “˜SM/L” should be “˜SM/K”

Page 186, line −1: At the end of the display, “zϕ(z)” should be “2ϕ(z)”

Page 197, Exercise 10.4, second line of the display: “+ 24G4(L)/z2” should be “− 24G4(L)/z2”

Page 199, part (b) of Exercise 10.16: “Theorem 5.25” should be “Theorem 5.30”

Page 199, part (c) of Exercise 10.16: In the display, “∑ [O_K:Z[a]] h(f^2d_K)” should be “∑ f | [O_K:Z[a]] h(f^2d_K)”

Page 203, line −14: “γ ̸= ±1” should be “γ ̸= ±I”

Page 208, line 10: The display should be

\[q(\sigma \tau) = e^{2\pi i (a\tau + b)/d} = e^{2\pi ib/d} q^{a/d}\]

(two errors in the original)

Page 217, line 12: “some prime ideal of O” should be “some prime ideal of O_K”

Page 219, line −10: “of class field theory” should be “of complex multiplication”

Page 221, second display: The display should be

|b| ≤ a ≤ c, and b ≥ 0 if either |b| = a or a = c.

Page 268, line 1: “compute HD(X)” should be “compute HD(X) for most D”
Page 268, line −15: “compute any $H_D(X)$” should be “compute $H_D(X)$ for any $D \neq -3k^2, k$ odd”