Errata and Notes

for

Elements of Mathematics

Gabor Toth

January 23, 2024

page(s)/line(s)[1]

31/-14: $\{\{x\}, \{x, y\}\}$

54/-14: $\mathbb{N}$ instead of $\mathbb{Z}$

62/-9: $n + 1$ instead of n

66/-8: $\gcd(na, nb) = n \cdot \gcd(a, b)$

66/-5: $\gcd(a_1, a_2) = 1$

77/21: "use" only once

77/23: $q' \leq q$

112/10: "be distinct"

121/6: $\mathbb{N}_0 \to \mathbb{Q}$

122/18: $0 < \epsilon/2 < b_n - a_n - q_0$

126/-9: $q \leq n$

127/4: $q \leq n$

130/-9: "exists"

131/2: $0 \leq j < q$

181/2: "and $\lim_{n\to\infty}(b_1 + \cdots + b_n) = \infty$."

183/-2 footnote: "the ratio test implies the root"

193/5: $0 < \delta \leq d$

195/11: "Proposition 4.1.3" instead of 4.1.1

197/15: $r < 0$, $r \in \mathbb{R} \setminus \mathbb{Q}$

219/7: $0 \leq t \leq 1$

224/4: In the denominator δ_n instead of δ_n^2

[1]The author thanks Zixuan Zhao for the careful reading of the book and the suggested corrections below.

229/19: $d(P_t, O)^2$

231/6: Move "(see Figure 5.1.)" to line 13

237/10: "and $|s|$ is strictly increasing"

243/18: $= \mathcal{L}_{\mathcal{C}_1} + \mathcal{L}_{\mathcal{C}_2''}$

243/19: $= \mathcal{L}_{\mathcal{C}_1} + \mathcal{L}_{\mathcal{C}_2''} + \mathcal{L}_{\mathcal{C}_2'} =$

245/1: $d(Q_t, Q_0)^2 =$

284/4: "of degree $< n$"

305/-7: "appearing in the"

309/-8: $ab + 1$

312/-4 table: In the table the entries of the b column are: 1 6,21 0 10 2 42,12.

324/6: "Moreover, $e_2(x) =$"

333/10: $\cdots (n + m + 1)$

333/20: "For $m = 5$"

339/-6: "difficult than factoring"

356/-11: $+B\left(y + \frac{V}{2B}\right)^2 +$

360/-4: $/(1 - u)^2$.

366/-9: $= r + r_2$.

374/20: "hyperbola; and ℓ_0 is on one side of the branch of the hyperbola containing P_0."

375/-3: $ab + 1$

376/9: $C^2 - 4AB =$

417/8: "(4) ... $= GM(x, y)$;"

435/6: "of degee $p + 1$"

438/-1: $nB_{n-1}(y)$.

451/5: $\cdot\frac{n}{n+1}$

463/10: $= u^k - v^k \geq (v+1)^k - v^k$

467/-1: $2 < n \in \mathbb{N}$.

484/3: $= -\frac{3q}{2p}\sqrt{-\frac{3}{p}}$

484/7: "Since $x = u\cos(\theta)$"

484/-4: $\pi/3$

485/-3: $\Rightarrow n+1$

494/8: $= 2\cos\frac{\alpha+\beta}{2}\cos\frac{\alpha-\beta}{2}$

501/13: $0 < x < \pi$

511/-8: $+\csc^4(\alpha) =$

511/-3: $= 8\cot^3(\alpha) - 4\cot(\alpha)\csc^2(\alpha) = 4\cot^3(\alpha) - 4\cot(\alpha).$