

ERRATA TO “REAL ANALYSIS,” 2nd edition (6th and later printings)

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Additional corrections will be gratefully received at folland@math.washington.edu.

Page 7, line 12: $Y \cup \{y_0\} \rightarrow B \cup \{y_0\}$

Page 7, line -12: $X \in \rightarrow x \in$

Page 8, next-to-last line of proof of Proposition 0.10: $E \rightarrow X$

Page 12, line 17: $a \in \mathbb{R} \rightarrow x \in \mathbb{R}$ (two places)

Page 22, line 2: subset \rightarrow subset

Page 24, Exercise 1, line 1: A family \rightarrow A nonempty family

Page 24, Exercise 3a: disjoint \rightarrow disjoint nonempty

Page 34, line 1: $\bigcup_1^n J_j \rightarrow \bigcup_1^m J_j$

Page 37, line -1: countable \rightarrow countable set.

Page 40, line 2 of §1.6: 2.7 \rightarrow 2.8

Page 45, line 5: $[\infty, \infty] \rightarrow [-\infty, \infty]$

Page 49, line -8: integrals \rightarrow integrals

Page 56, last line of proof of Theorem 2.27: $(x, t) \rightarrow (x, t_0)$

Page 60, Exercise 31e: $s^2 \rightarrow a^2$

Page 61, line 9: repectively \rightarrow respectively

Page 66, line -4: $\bigcap_1^\infty E_n \rightarrow E = \bigcap_1^\infty E_n$

Page 67, next-to-last line of Theorem 2.37: $\int f^y d\nu \rightarrow \int f^y d\mu$.

Page 69, Exercise 49a: $\mathcal{M} \times \mathcal{N} \rightarrow \mathcal{M} \otimes \mathcal{N}$

Page 69, Exercise 50: Either assume $f < \infty$ everywhere or use the condition $y < f(x)$ to define G_f . Also, $\mathcal{M} \times \mathcal{B}_{\mathbb{R}} \rightarrow \mathcal{M} \otimes \mathcal{B}_{\mathbb{R}}$.

Page 72, line 5: definitons \rightarrow definitions

Page 75, line 9: $\sum_j (x_j - a_j)(\partial g / \partial x_j) \rightarrow \sum_k (x_k - a_k)(\partial g_j / \partial x_k)$

Page 76, line 6: $\bigcup_1^\infty U_j \rightarrow \bigcap_1^\infty U_j$

Page 76, line -6: $G(\Omega)) \rightarrow G(\Omega)$

Page 88, Exercise 6: $\int f d\mu \rightarrow \int_E f d\mu$

Page 90, line -6: $f \rightarrow f_j$

Page 104, line 7 of proof of Lemma 3.28: $x_0 < \cdots \rightarrow x = x_0 < \cdots$

Page 104, line -12: $\sum_1^n \rightarrow \sum_1^m$

Page 115, line -12: Propostiion \rightarrow Proposition

Page 159, next-to-last line of proof of Theorem 5.8: Moroeover \rightarrow Moreover

Page 165, line 6: $x \in X \rightarrow x \in \mathcal{X}$

Page 166, line -2 of proof of Theorem 5.14: $(1-t)x + (1-t)z \rightarrow (1-t)x - (1-t)z$

Page 166, line -1: $U_{x\alpha_j\epsilon_j} \rightarrow U_{0\alpha_j\epsilon_j}$

Page 167, line 3: $p_{\alpha_j}(y) < \epsilon \rightarrow p_{\alpha_j}(y) \leq \epsilon$

Page 167, bulleted item at bottom (continuing to next page): \mathbb{C}^X should be replaced by the space of locally bounded functions on X , i.e., the space of all complex-valued functions f on X such that $p_K(f) < \infty$ for all K .

Page 174, line 2: paralellogram \rightarrow parallelogram

Page 174, line -4: $\mathcal{X} \rightarrow \mathcal{H}$

Page 177, line 1: $e_\alpha \rightarrow u_\alpha$ and $\mathcal{X} \rightarrow \mathcal{H}$

Page 179, next-to-last line of notes for §5.1: coincides with \rightarrow extends

Page 197, line -2: on $(0, \infty)$, \rightarrow on $[0, \infty)$ such that $\phi(0) = 0$,

Page 208, Exercise 41: For the case $p = \infty$, assume μ semifinite.

Page 208, Exercise 45, lines 3 and 4: T is weak type $(1, n\alpha^{-1})$ and strong type (p, r) where $1 < p < n(n - \alpha)^{-1}$ and $r^{-1} = p^{-1} - (n - \alpha)n^{-1}$.

Page 210, final sentence: Theorem 6.36 was discovered independently, a little earlier than [51], by D. R. Adams (A trace inequality for generalized potentials, *Studia Math.* **48** (1973), 99–105).

Page 217, lines 7 and 8: $f \rightarrow f_1$

Page 218, line -5: $\chi_u \rightarrow \chi_U$

Page 224, line 8: Insert minus signs before the two middle integrals.

Page 224, line -4 of proof of Proposition 7.19: $(-\infty, N] \rightarrow (-\infty, -N]$

Page 224, Exercise 18, line 1: $\mathcal{M}(X) \rightarrow M(X)$

Page 225, Exercise 24b: $\int f d\mu \rightarrow 0$

Page 225, Exercise 24c: $F(x) \rightarrow 0$

Page 226, line 2 of Proposition 7.21: $X \otimes Y \rightarrow X \times Y$

Page 229, line -10: $\mathcal{B}_X \times \mathcal{B}_Y \rightarrow \mathcal{B}_X \otimes \mathcal{B}_Y$

Page 242, line 12: $\|g\|_{(N+n+1, \alpha)} \rightarrow \|g\|_{(N+n+1, 0)}$

Page 246, Exercise 9: Assume $p < \infty$.

Page 247, line 2 of Theorem 8.19: $\mathbf{T}^n \rightarrow \mathbb{Z}^n$

Page 251, line 4: $-2\pi a e^{-\pi a x^2} \rightarrow -2\pi a x e^{-\pi a x^2}$

Page 254, line 5: $\mathbb{Z}^N \rightarrow \mathbb{Z}^n$

Page 254, line 4 of proof of Theorem 8.32: 8.35 \rightarrow 8.31

Page 261, line 7: $e^{-2\pi i \kappa x} \rightarrow e^{2\pi i \kappa x}$

Page 264, line 4: $e^{2\pi(2m+1)x} \rightarrow e^{2\pi i(2m+1)x}$

Page 268, formula (8.46): $\frac{1}{2} - x - [x] \rightarrow \frac{1}{2} - x + [x]$

Page 269, line 6: $S_m(a_j) \rightarrow S_m f(a_j)$

Page 273, line 7: if for all \rightarrow for all

Page 286, line 3: $\psi(y) \rightarrow \psi(x)$

Page 286, lines -13 and -5, and page 287, lines 1 and 3: $U \rightarrow V$

Page 288, line -10: $\psi(\epsilon x) \rightarrow \psi(x/\epsilon)$

Page 289, Exercise 7, line 2: f agrees \rightarrow there exists a constant c such that $f + c$ agrees

Page 296, line -9: $x_j \rightarrow \xi_j$

Page 297, line 7: One \rightarrow On

Page 300, Exercise 28, line 2: $|\xi|^{\alpha-2} \rightarrow |x|^{\alpha-2}$

Page 303, line 7: $(1 + |\xi|^2)^s \rightarrow (1 + |\xi|^2)^{-s}$

Page 320, line -1: the the \rightarrow the

Page 325, Exercise 17, line 2: smaple \rightarrow sample

Page 325, Exercise 17, line 9: $X_j - M_j \rightarrow X_j - M_n$

Page 325, line 3 of §10.3: $e^{(t-\mu)^2/2\sigma^2} \rightarrow e^{-(t-\mu)^2/2\sigma^2}$

Page 326, line -6: $X_n \rightarrow X_j$

Page 331, line -7: $\exp(\dots) \rightarrow \exp(-\dots)$

Page 332, formula (10.23): $\exp(\dots) \rightarrow \exp(-\dots)$

Page 341, proof of Proposition 11.3, line 3: it \rightarrow if

Page 344, proof of Theorem 11.9, end of line 2: Delete “ $h \in C_c^+$ and”.

Page 349, line 3: $\mu^*(A) \cup \mu^*(B) \rightarrow \mu^*(A) + \mu^*(B)$

Page 349, line -11: $B^{2k-3} \rightarrow B_{2k-3}$

Page 358, line 10: $C_\ell(X) \rightarrow C(X)$

Page 358, line -7: $x_{i_1 \dots i_k} \rightarrow x_{i_1 \dots i_k}$

Page 373, reference 139: *in* \rightarrow *on*

Page 378, line -2: $CS' \rightarrow S'$