

Errata for Vector Calculus, 4th Edition, 5th Printing

Version: October 15, 2000

Jerrold E. Marsden, marsden@cds.caltech.edu

Anthony J. Tromba, tromba@math.ucsc.edu

This file contains the errata known to us as of the above date for the fifth printing of the 4th edition, (2000). You can tell if you have the **fifth printing** of the fourth edition by looking at the bottom of the page opposite the table of contents page. It should say “Fifth Printing, 2000”.

If you have an earlier printing please see the web site for the errata list:
<http://www.cds.caltech.edu/~marsden>.

Chapter 1

Page 65, line 5 from the bottom; change the two a 's to α .

Page 66 line 11 change “By Theorem 2 we have” to “By Theorem 3 we have”.

Page 66 in the corollary (in box) change \mathbb{R}^3 to \mathbb{R}^n .

Chapter 2

Page 80 introduction: in line 11 change 2.3 and 2.4 to 2.3 and 2.5, in line 13 change Section 2.5 to Section 2.6.

Page 93, line 7 from the bottom, \mathbf{R}^n should be \mathbb{R}^n .

Page 98 in Fig. 2.2.8 (a) the point x_0 on the x -axis should be a little open circle.

Page 104 end of line 7 from bottom, change $\delta \geq 0$, to $\delta > 0$.

Page 131, In the last line, $\sin 1$ should be $-\sin 1$.

Page 135 in last line of box (Th. 11) y_0 and x_0 should be boldface.

Chapter 4

Page p. 269 line 5 from bottom for ‘vector filed’ read ‘vector field’.

Chapter 5

Page 324, In the solution of Example 2, the first sentence should read “It will simplify matters if we first interchange the order of integration.” As Chris Phillips points out, one can evaluate it in the given order using the substitution $u = \sqrt{1 + e^{2y}}$, although this is more complicated.

Chapter 6

Pages 368-369. In Example 5, instead of using the substitution T , one can divide the original square into two triangles T_1 and T_2 as in the text, write the integral over T_1 as a double integral (first with respect to y , then with respect to x); in the integral over y , substitute $y = xv$, then use the standard integral number 43 at the back of the book.

Page 363, In the image on the right in Figure 6.2.5, the angle θ_2 should be θ_0 .

Answers to Odd-Numbered Exercises

Page 560 in line 3 (ex. 15 (b)) change k to h .

Page 564 ex. 11 line 2 change \sqrt{c} to $\sqrt{-c}$.

Page 564 ex. 17 last line change V -shaped curves $x = |y|$ to V -shaped curves $z = |y|$.

Page 572, In section 2.6, number 15, the exponent $\frac{1}{2}$ should be $-\frac{1}{2}$ and on the next line there should be a minus sign after the last equality sign.

Inside Back Cover

Line 7, In the description of the half open interval $[a, b)$, change $a \leq x \leq b$ to $a \leq x < b$.

Line 12, change \mathbf{R} to \mathbb{R}

Line 25 C^2 change 246 to 172.