

Errata for Vector Calculus, 4th Edition, 7th Printing

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This file contains the errata known to us as of the above date for the seventh printing of the 4th edition (2001). You can tell if you have the **seventh printing** of the fourth edition by looking at the bottom of the page opposite the table of contents page. It should say “Seventh printing, 2001”.

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

Chapter 2

Page 167, Exercise 22, line 2. “in this direction” should be “at this point”.

Chapter 3

Page 184, In the formulas for $g'(t)$ and $g''(t)$ on lines 4 and 5 from the bottom (not counting the footnote), in the expressions \mathbf{h}_i and \mathbf{h}_j , the h 's should not be bold (there are 3 of these).

Chapter 4

Page 277, In figure 4.4.5, the arrow right below the origin (where the axes cross), the arrow pointing downwards should be pointing upwards.

Page 282, In Example 13 (on line 1), $\mathbf{V}(x, y)$ should be $\mathbf{V}(x, y, z)$ (that is, add a comma and a z).

Chapter 6

Pages 368-369 Comment on 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 389, line 3 “We choose $\delta < \eta \dots$ ” should be “We choose $\delta < \eta < 2\delta \dots$ ”.

Chapter 7

Page 401, Exercise 6 the first t_i in the sum should be t_i^2 .

Page 410, line 11 should read

$$\gamma(t) = (\cos t, \sin t), \quad 0 \leq t \leq 4\pi.$$

Page 423 , Figure 7.3.5], the Φ in this figure and in Figure 7.3.6 on page 424 should be bold. There are five of them in all.

Page 430, line 5 the line should end with a colon “:”.

Page 450, line 10 should read

$$= [(\cos \theta \sin \phi)\mathbf{i} + (\sin \theta \sin \phi)\mathbf{j} + (\cos \phi)\mathbf{k}].$$

(that is, replace the last sin with a cos).

Page 462, Exercise 18c $\int_C \mathbf{F} \cdot d\mathbf{S}$ should be $\int_C \mathbf{F} \cdot ds$.

Chapter 8

Page 504 , On line 6, “in Figure 5.6.1” should read “in Figures 5.6.2 and 5.6.4”.

Answers to Odd-Numbered Exercises

Page 598, §6.3 (5) the answer should be \$503.64.

Page 605, §7.6 (17) the answer should be $2a^3bc\pi/5$. (that is, $2/3$ should be $2/5$).