MULTIVARIABLE CALCULUS — ERRATA

JOHN QUIGG

page 5 (13.3): corrected $0 \cdot \mathbf{a} = 0$ to $\mathbf{0} \cdot \mathbf{a} = 0$ (the result is a scalar!)

page 7 (13.5): in the distance from a point to a plane, both $|P_0 P| \cos \theta$ and $\text{comp}_n \overrightarrow{P_0 P}$ should be inside absolute value bars

page 8 (13.6): in the hyperboloid of 1 sheet, the vertical traces are hyperbolas, but they don’t all open horizontally!

page 12 (14.4): should be another “=” in last equation

page 13 (15.1): “traces” should be moved to 15.3

page 22 (16.1): switched it so $i$ goes from 1 to $m$ and $j$ from 1 to $n$

page 27 (16.7): switched it so $i$ goes from 1 to $l$, $j$ from 1 to $m$, and $k$ from 1 to $n$

page 32 (17.2): the 3rd integral in the 1st display should be from $a$ to $b$

page 33 (17.3): definition of connected changed from “every” to “any”, and appended informal remark: (“$D$ is all in one piece”)

chapters 13–14: corrected vv to v throughout: removed notations $V_2$ and $V_3$ for sets of 2-d and 3-d vectors, also $\parallel$ for parallel, and $\perp$ for perpendicular

page 27 (16.7): in definition of triple integral, “$n, m, p \to \infty$” should be “$l, m, n \to \infty$”

page 33 (17.3): “simple curve” shouldn’t include closed - consequently the definition of “simply connected” needs to refer to “every simple closed curve” — also, two of the facts can be combined:

Let $P$ and $Q$ have continuous partials on an open connected set $D$. If $\mathbf{F} = P\mathbf{i} + Q\mathbf{j}$ is conservative, then $\frac{\partial P}{\partial y} = \frac{\partial Q}{\partial x}$, and conversely if $D$ is simply connected.