Errata for Calculus Revised

by Lynn Garner

p. xi, paragraph -3, line -2: backward quote marks

p. xii, line 2, and paragraph 3. line 2: backward quote marks

p. 4, line -8: ...the least of all the upper bounds of $S$, if it exists, is called...

p. 5, line 1: ... the greatest of all the lower bounds of $S$, if it exists, is called...

p. 7, Problem 14: ... completeness property...

p. 29, paragraph 3, line 3: ... all scientific calculators...

p. 49, paragraph -2 should read: Theorem 4 follows from the Factor Theorem and Descartes’ Rule of Signs.

p. 56, Problem 7(a): ... any positive integer n; 7(b): ... any odd positive integer n

p. 71, first subheading: Principal Domains

p. 77, Problem 9, lines 1 and 6: ... principal domain ... 

p. 80, problem 14: ... by using the identity $\tan 2\theta = \frac{2\tan \theta}{1 - \tan^2 \theta}$ and computing in turn ...

p. 132, Problem 2(m): $\lim_{x \to 1} \frac{x^2 - 1}{x^3 - 1}$

p. 140, Problem 11(e): interval should be $(0, \infty)$.

p. 171, number 11 is misplaced; ignore.

p. 171, Section 2.3, number 2(l): 1.

p. 231, number 3(a): $80 - 32t; -32; 50; 80; -32$. number 3(c): $-(t + 1)^{-2}; 2(t + 1)^{-3}; \frac{1}{5}; -\frac{1}{25}; \frac{2}{25}$.

p. 253, Problem 1(j): omit $n\pi \pm \frac{\pi}{6}, 2n\pi + \frac{3\pi}{2}$. 

p. 274, problem 20: ... Fixed costs for the complex are...

p. 321, Section 4.2, number 5: ... x-axis.

p. 337, Problem 1: ... sketch the graphs, wherever they exist, of the derivative ...

p. 452, number 1(c): 1.243691; 0.976934; 1.110268; 1.052875; 1.098661.

p. 592, problem 9, line 2: ... pipeline ...

p. 669, line 8: To...

p. 693, line 9: ... set of points in the plane, the sum ...

p. 724, line -2: ... another...

p. 744, line -15: ... heliocentric...

p. 749, Problem 4(b): An ellipse with ...

p. 754, Section 10.4, number 3(a): \( r^2 = 2 \sin \theta \cos \theta \)

p. 755, Section 10.5, number 1(i): \( \frac{5}{\sqrt{3}} \)

p. 761, line -4: ... represented...

p. 772, line -10: ... half a parallelogram ...

p. 773, line 5: ... the angular speed of the spinning object...

p. 774, lines 9, 11, 14, and Figure 11.12: ... parallelepiped ...

p. 776, Problem 8: ... show that one of them is a linear combination of the other two.

p. 783, line 7: Subtracting from \( \pi \), we get an acute angle of about 1.342, which is just under 77°.

p. 783, Problem 3(a): The plane with ...

p. 791, line 14: ... non-zero...

p. 812, lines 6, -1, -13: ... angular speed ...

p. 813, Problem 3: ... at a speed of 14,000 miles per hour...
p. 825, problem 6(b) ... hydrogen...

p. 828, Section 11.8, number 1(a): \( \kappa = \frac{2}{17\sqrt{17}} \)

p. 830, line 5: ... latitude...

p. 847, line -5: ... example of a set of points in the plane that is not an open set ...

p. 860, Problem 4(c) Where are points \( Q \) such that...

p. 870, Figure 12.14: ... for Exercise 1.

p. 880, Problem 3(c): ... \( = -1 \).

p. 883, line 12:... zero or non-existent.

p. 883, last sentence: A point \( Q \) is called a p. 890, line 9:boundary point of \( S \) in case every open disc containing \( Q \) contains both a point of \( S \) and a point not is \( S \).

p. 890, line 9: \( x^2 \), not \( s^2 \).

p. 892, Problem 11: Find the point on the surface that is nearest to the origin:

(a) \( z = 1 - x^2 - y^2 \)
(b) \( z = 4 - x^2 - y^2 \)
(c) \( z = 4 - x^2 - 3y^2 \)
(d) \( z = 4 - (x - 1)^2 - 3y^2 \)

p. 902, Problem 13: \( \frac{dy}{dx} = ky(L - y) \); ... replaced by the point \((yk, \ldots \)

p. 908, Problem 3: ... subject to the given ...

p. 909, Problem 7: ... temperature...

p. 923, Figure 13.4: ... \( z = 16 - x^2 - y^2 \)...

p. 948, Problem 2(c): ... \( \delta = k(x^2 + y^2 + z^2) \)

p. 973, Theorem 167: If \( P \) and \( Q \) are functions continuously differentiable at all points in the plant, then...

p. 993, line -4: ... and if \( t_1, t_2 \in [a, b], t_1 < t_2, \) and \( \vec{r}(t_1) = \vec{r}(t_2) \), then \( t_1 = a \) and \( t_2 = b \).

p. 1013, line -3: ... radius...
p. 1014, Example 379: In the equations, replace $u/2$ with $(u/2)$.

p. 1024, Problem 3(f): Find an integral giving the surface area...

p. 1024, Problem 3(h): ... has density $\delta = x + 2$, find an integral giving the mass...

p. 1024, Problem 3(i): omit

p. 1026, Problem 7(a): Use the previous section to give...

p. 1026, Problem 9(a): Use the previous problem to give...

p. 1026, Problem 9(c): Find the integral giving the flux...

p. 1026, Problem 11: In the equations, replace $u/2$ with $(u/2)$.

p. 1043, Problems 1(a)–(d): $\vec{F} = \langle 2xz, e^x, -z \rangle$


p. 1050, Figure 15.6: $\langle y, -x, z \rangle$

p. 1051, Problem 2(e): Add, [If $\vec{F} = \langle P, Q, R \rangle$, then $\vec{\nabla}^2 \vec{F} = \langle \vec{\nabla}^2 P, \vec{\nabla}^2 Q, \vec{\nabla}^2 R \rangle$.]

p. 1051, Problem 4: Restate: An object in uniform circular motion has position $\vec{r} = \langle x, y, 0 \rangle = \langle a \cos \omega t, a \sin \omega t, 0 \rangle$.

(a) Express the velocity $\vec{v}$ in terms of $x$ and $y$.

(b) Compute the angular velocity $\vec{\omega} = \frac{\vec{r} \times \vec{v}}{||\vec{r}||^2}$.

(c) Show that curl $\vec{v} = 2\vec{\omega}$. 