Erata, Third Revised Edition, Garner's *Calculus*

p. 26, line -19 (19 from bottom): "these"

p. 29, line 3: omit one "if"

p. 49, line -7: add "n" to "function"

p. 55, Problem 2(c): $f(\frac{1}{f(x)})$

p. 114, problem 10, line 1: space before "suppose"

p. 134, Example 38: omit *displaystyle*

p. 137, Figure 2.31 is missing; the graph approaches the x-axis from below as $x \to -\infty$ and grows rapidly as $x \to \infty$.

p. 197, Problem 17: insert space between page and 35

p. 208, Problem 5(d): $-\frac{1}{8}$, not $-\frac{1}{4}$

p. 214, Problem 11(l): $y^{1/3}$, not $y^{2/3}$

p. 233, Theorem 67, part 1(d): ... lies *on or* above ... ; part 2(d): ... lies *on or* below ...

p. 235, Problem 4(a): add that f is nonconstant

p. 237, Problem 10(c): "Exercise 8": remove lone parenthesis

p. 238, Problem 13(c): Use Problem "8" to "show"...

p. 250, line -8: $\frac{1}{\sqrt{2}}$

p. 267, Problem 10, line 2: "Groundhog"

p. 274, problem 15, end of last line: $-0.02c$/sec

p. 280, line 14: denominator should be $1 + be^{-8k}$

p. 282, Problem 17: should refer to (4.51), not (5.3)

p. 303, Problem 32(h): should be $x \to \pi/2-$

p. 323, Problem 13, line 2: ... deceleration *proportional* to ...

p. 335, Problem 20 (b): $K(x)$ should be the sum, not difference, of the squares.

p. 351, last line: should be $R_f(6)$, not $R + f(6)$

p. 366, equation (6.23): replace RHS by R_f

p. 369, Problems 4 and 5: add $n \in \mathbb{N}$

p. 378, line -10: replace MPS with M_f and $TRAP$ with T_f

p. 385, Theorems 92 and 93: ... f and g are *defined and* continuous ...

p. 387, Theorems 95 and 96: ... f and g are *defined and* continuous ...

p. 390, Problem 5(f): limits should be –1 and 1

p. 391, Problem 9: " ... occupying ..."

p. 399, Problem 11: f should be continuous

p. 413, Problem 5(b): omit the d after the equal sign

p. 468, line 8: last numerator is –1, not 1.

p. 473, Theorems 102 and 103: ... are defined *and continuous* over ...

p. 519, Problem 2(b): add $m > 0$

p. 555, line 15: "... is ..."; last line: omit space before last period

p. 556, line 3: move period to end of previous equation

p. 558, line -8: *theta* should be θ.

p. 558, line -2: the label (8.48) should be on this line

p. 559, line 6: (??) should be (8.48)

p. 559, line -3: backward quote marks

p. 560, Problem 6, last line: capitalize W

p. 560, Exercise 10: delete "index Torricelli's law"

p. 562, Problem 21, parts (b) and (c): Capitalize "If"

p. 601, line -1: denominator is 10^{3n}

p. 605, line -1: $S = 0$, not $S = 1$.

p. 612, Theorems 129 and 130: ... $n + 1$ times *continuously* differentiable ...

p. 646, last displayed equation: omit extra = sign.

p. 671, last line: ... f and g are differentiable *and the derivatives are non-zero*, we say ...

p. 696, line -6: *are* called ...

p. 773, last two displayed equations: insert a total of 5 missing parentheses

p. 781, line -11: replace $fracgk$ with $\frac{g}{k}$

p. 782, Problems 4, 5, and 7: replace "angular velocity" with "angular *speed*"

p. 784, line 4: vector is $\langle 3, -2 \rangle$

p. 883, line 3: ... variable...

p. 928, Figure 13.28: label $[r, \theta, z]$ should be $[\rho, \theta, \phi]$

p. 974, line 7: ... differently-shaped ...

p. 989, line 5: ... latitude ... ; line -5: ... latitudinal ..

p. 990, line 1: ... "latitudinal" ...

p. 990, equation (14.51): $u \in (-\infty, \infty)$

p. 1006, problem 14: $n = 3$, not $n = 2$

p. 1020, problem 3, line 1: located. problem 3(d): equation should be $\iint_S \vec{E} \cdot \vec{n}\, d\sigma = \frac{q}{\epsilon_0}$

p. 1021. Problem 8(b): $S : \dfrac{x^2}{a^2} + \dfrac{y^2}{b^2} + \dfrac{z^2}{c^2} = 1$

p. 1024, line -12: capitalize $\vec{F}$

p. 1045, Archimedes, line 4: Hieron

p. 1062, Figure 19: "... for Problem 1.6.3"

p. 1065, Problem 2(c): last entry should be –10.096 cm/sec

p. 1067, problem 13(b): $\frac{1}{4}$

p. 1071, line 3: ... *there* exists ...

p. 1074, Problem 3(c): last entry should be $\frac{2}{125}$

p. 1075, Problem 5(g): should be $-4\sin x\cos x = -2\sin 2x$.

p. 1076, Problem 1(k): should be $4\sqrt{x+y}\cos\sqrt{x+y} - 1$

p. 1076, Problem 4(k): remove the minus sign in the numerator

p. 1076, problem 10: $\dfrac{x}{\sqrt{x^2+4}}$; 0

p. 1076, Problem 1(k): $4\sqrt{x+y}\cos(\sqrt{x+y}) - 1$

p. 1077, Problem 5(c) (at top of page): should be $y = \frac{1}{2} - x$

p. 1077, Problem 10(k): second number should be 0.087266

p. 1078, Figure 31: "... for Problem 4.3.19"

p. 1079, Problem 5(m): concave *up*; Problem 5(q): add 0 as a critical point

p. 1083, Section 4.7, problem 9: should be $-\frac{2}{3}$ ft/sec

p. 1083, Section 4.7, problem 14: should be $-0.021k$

p. 1083, Section 4.7, Problem 17: add "decreasing"

p. 1086, Figure 34: In (b), the graph of f' is missing: it is an oblique line through the origin, with slope about $\frac{1}{2}$. In (d), the graph of F over [3, 5] is not straight, but a decreasing, concave upward segment of a parabola.

p. 1086, Problem 9(c): last entry should be $s = -4.9t^2 + 20t + 12$

p. 1087, Problem 20(c): $g(x) = -\frac{3}{2}x^2 + 5x$ (two places)

p. 1087, Problem 11: $\frac{15}{2}$

p. 1089, Section 6.2, Problem 7(b) should be "November"

p. 1093, Problem 10, line 3: "upper"

p. 1094, Problem 3(g): should be $\frac{\pi}{6}$

p. 1094, Problem 3(i): should be $2\ln\frac{8}{5} - 0.171$

p. 1094, Problem 3(k): should be $\frac{3}{2e} - \frac{e}{2} - 1$

p. 1095, Problem 3(c): 7, not $\frac{59}{5}$

p. 1096, Section 7.1, Problem 4(a): $\frac{1}{27}$, not $\frac{2}{27}$; $\frac{2}{9}x\cos 3x$ (insert x)

p. 1096, Section 7.3, Problem 2(e): omit $\frac{1}{\sqrt{5}}$

p. 1097, Problem 4(h): coefficient is $\frac{1}{a}$, not a

p. 1097, Problem 2(c): $\ln 2$, not $\ln 3 - \ln 2$

p. 1098, Section 7.5, Problem 1(c): $\sqrt{3} - \frac{1}{2}\ln(2+\sqrt{3})$; Problem 3(c): omit the coefficient $\frac{1}{2}$

p. 1098, Section 8.1, problem 2(d): $\frac{8\sqrt{2}}{3\sqrt{3}}$

p. 1099. Section 8.2, Problem 1(e): $\frac{2304\pi}{5}$; Problem 4(d)iii: $\frac{2\sqrt{3}}{3}$

p. 1099, Section 8.3, Problem 1(e): $2\pi(e-1)e^e + \frac{1}{2}(e^2-1)$; Problem 5(d): $(\frac{1}{2}e^2 - 6e + \frac{79}{6})\pi$

p. 1100, Section 8.7, Problem 1(g): $(-\frac{1}{4}, 0)$

p. 1101, Problem 3(d): $(0, \frac{16}{5})$

p. 1101, Problem 6(a): $\pi^2(\frac{7}{8} - \frac{1}{4\pi})$

p. 1105, line 1: Problem 19, not Problem 20. Section 9.3: Problem 3, not Problem 4.

p. 1105, Section 9.5, problem 4(e): $1 + \frac{1}{2!}x^2 + \cdots$

p. 1106, Section 9.6, Problem 1(a): $[-\frac{1}{10}, \frac{1}{10})$

p. 1108, Problem 6(d): change $-\frac{3}{2}$ to $\frac{3}{2}$ throughout

p. 1109, Problem 10: $t = \frac{2v_0}{g}\sin\theta; s = \frac{v_0^2}{g}\sin 2\theta$

p. 1109, Problem 14: add max h $\approx 31.9, 122.43$ m.

p. 1109, Section 10.3, Problem 1(g): $-\frac{e^t}{t}$

p. 1110, Section 10.5, Problem 1(i): $\frac{2+\sqrt{3}}{\sqrt{3}}$

p. 1110, Section 10.5, Problem 2(c): $[\pm 1, 0], [\pm 1, \frac{\pi}{2}], [\pm\frac{2}{3}, \pm\tan^{-1}\frac{1}{\sqrt{5}}], [\pm\frac{2}{3}, \pm\tan^{-1}\sqrt{5}]$

p. 1110, Section 10.5, Problem 8(c): $\sqrt{15}$, not $\sqrt{7}$; Problem 8(g): $\frac{8\pi}{3} + \sqrt{3}$

p. 1113, Section 11.2, problem 2(i): $\langle 0, \frac{22}{13}, \frac{33}{13}\rangle$; Problem 2(k): $\langle 10, 9, -6\rangle; \langle -5, -2, -7\rangle; \langle 5, 2, 7\rangle$; Problem 2(m): $\langle -3, 4, 1\rangle$

p. 1113-4, Section 11.2: Omit problem 7; relabel Problems 9,11,13 as 7,9,11.

p. 1114, top: Problem 13: 84. Problem 15: -1.6×10^{-19}.

p. 1114, Problem 18: If $\vec{u}$ and $\vec{v}$ are orthogonal, then $\vec{u}\cdot\vec{v} = 0$. Hence $\|\vec{u}+\vec{v}\|^2 = (\vec{u}+\vec{v})\cdot(\vec{u}+\vec{v}) = \vec{u}\cdot\vec{u} + 2\vec{u}\cdot\vec{v} + \vec{v}\cdot\vec{v} = \|\vec{u}\|^2 + \|\vec{v}\|^2$.

p. 1114, Section 11.5, Problem 4(e): $3x + 9y - 8z = -4$; Problem 9(a): $2y$, not 27.

p. 1115, Section 11.7, Problem 7: $\frac{24\sqrt{10}}{\pi}$ rpm

p. 1116, Section 11.8, Problem 1(c): osculating plane is $\sqrt{3}x - y + 4z = \frac{2\pi}{3}$. Problem 6: ...square...

p. 1117, Problem 3(a): $8x - 3y; -3x + 8y$

p. 1117. last line: Problem 11(a): $(a\cos\theta + b\sin\theta)\vec{e}_r + (b\cos\theta - a\sin\theta)r\vec{e}_\theta$. Problem 11(c): $2r\cos 2\theta\vec{e}_r - 2r^2\sin 2\theta\vec{e}_\theta$.

p. 1118, Problem 10: (b) should be (c); langle should be $\langle$

p. 1118, Problem 17(a); $\cos^{-1}\frac{-1}{\sqrt{10}}$

p. 1118, Section 12.7, Problem 3(e): also a saddle point at $(-1, 0, -\frac{2}{3})$; omit 3(m) on this page

p. 1119, Problem 3(q): add saddle points at $(\pm\frac{\pi}{2} + 2n\pi, \mp\frac{\pi}{2} + 2n\pi, 0)$

p. 1119, Section 12.8, Problem 4(c): exponent is positive

p. 1120, Section 12.9: in Problem 3, omit extra label (g); relabel Problem 17 as Problem 18.

p. 1120, Section 13.2, problem 1(c): change sign

p. 1121, Section 13.2, Problem 5(c): $\frac{124}{49}$, not $\frac{12}{7}$.

p. 1121, Section 13.3, Problem 5(c)(i): center of mass is $(0, -\frac{2}{3\pi})$; Problem 8(a): e^2 rather than e

p. 1121, Section 13.4, Problem 1(g): $\frac{1}{6}\pi a^3$; Problem 4: change parts (a) and (c) to (c) and (f)

p. 1122, Section 13.7, Problem 6(a)(iii): the jacobian in the integral is 3, not 2.

p. 1122, Section 14.1, Problem 1: omit (ii); (a) is $\langle 2, 1 \rangle$

p. 1122, line -2: change (c) to (b)

p. 1123, Section 14.2, Problem 3(c): 1

p. 1123, Section 14.3, Problem 1(m): $\frac{1}{2}$; problem 1(u): π; problem 2(e): $\frac{1}{2}$; Problem 3(a): add $+C$

p. 1124, Problem 4(a): $\frac{15}{4}$

p. 1124, line -1, problem 2(f): $\frac{\pi}{6}(5\sqrt{5} - 1)$

p. 1125, Section 14.7, problem 5(e): $0.6x - y = 0.09$

p. 1125, Problem 5(g): double the value of $\bar{y}$; problem 5(h): $\frac{49}{4}\sqrt{17} + \frac{15}{16}\ln(4 + \sqrt{17})$; Problem 5(i): $\bar{y} \approx 2.346$

p. 1125, Problem 7(c): $-\frac{9}{5}\pi$

p. 1131, second column, line -11: "differentiation"

p. 1150, Double-Angle Formulas: $\cos^2 x$, not $\cos^x$

p. 1150, Half Angle or Power Reduction Formulas: $\cos^2 x = \frac{1}{2}(1 + \cos 2x)$

p. 1150, General Triangle Relations, Law of Sines: $\frac{\sin A}{a} = ...$