CALCULUS AND VECTORS Chapter 1

Location	This text, expression, etc. …	Should be changed to this:	Notes
1.1 1c	$2\sqrt{3}+\sqrt{2}$	$-2\sqrt{3}+\sqrt{2}$	
1.1 3c	$5+2\sqrt{6}$	$5-2\sqrt{6}$	
1.1 6a	$-2\sqrt{3}-4$	$\sqrt{6}+2$	
1.1 6b	$\frac{18\sqrt{2}+4\sqrt{3}}{23}$	$\frac{9\sqrt{2}+2\sqrt{3}}{25}$	
1.1 6d	$\frac{24+15\sqrt{3}}{4}$	$\frac{12+5\sqrt{6}}{2}$	
1.1 7a	$\frac{1}{\sqrt{a}-2}$	$\frac{1}{\sqrt{a}+2}$	
1.1 7b	$\frac{1}{\sqrt{x+4}-2}$	$\frac{1}{\sqrt{x+4}+2}$	
1.1 7c Student Book (p.9)	$\frac{\sqrt{x+h}-\sqrt{x}}{x}$	$\frac{\sqrt{x+h}-\sqrt{x}}{h}$	
1.2 7a	16.625	15.625	
1.2 10c	$-\frac{1}{10}$	$-\frac{1}{25}$	
1.2 20	1600 papers	500 papers/year	
1.2 22	$\left(-2,\frac{23}{3}\right)$	$\left(-2,\frac{28}{3}\right)$	
1.3 7 Student Book	has fallen a distance	is at a height	
1.3 7a	5 m/s 25 m/s 75 m/s	−5 m/s −25 m/s −75 m/s	
1.3 7b	55 m/s	−55 m/s	
1.3 14c	$x<80$	$0<x<80$	
1.3 16	\$1 162 250 years since 1982	\$1 162 250/year	
1.3 17b	300 m	30 m/s	
1.3 19	$\lim_{x\to R}$ $\lim_{x\to h}$	$\lim_{h\to 0}$ $\lim_{h\to 0}$	Delete h before comma at end of fifth line.
1.4 1a	$\frac{27}{99}$	$\frac{72}{99}$	
1.5 5a	−2	2	
1.5 7b	5	1	

1.5 10c	exists	does not exist	
1.5 11d	$\lim_{V\to 0} T$	$\lim_{V\to 0^+} T$	
1.5 11e			Graph is incorrect. See answer key.
1.6 14c	at $x = 2$	at $x = 3$	
Review Exercise 12c			Insert before given answer: $\lim_{x\to 4} h(x) = \frac{37}{7}$
Chapter 1 Test 5	$-\sqrt{16}$	-4	

CALCULUS AND VECTORS Chapter 2

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 8d	a^3b^{n-3}	a^2b^{n-3}	
2.1 4c - Part 1	$3a^{2h}$	$3a^2h$	
2.3 13b			Insert before given answer: $f'(x) = 2x, x < -1 \text{ or } x > 1$
Mid-Chapter Review 2c	$(x - 5)$	$(x + 5)$	
Mid-Chapter Review 14	$f'(x) = x^3$	$f(x) = x^3$	
Mid-Chapter Review 15			Delete "–1" in exponent at end of third line.
2.5 4a	$8(2x + 3)^2$	$8(2x + 3)^3$	
2.5 13c	878	320	
Review Exercise 5f			Change answer to: $-\frac{6(1-x^2)^2(x^2+6x+1)}{(6+2x)^4}$
Review Exercise 6a	$f(x^2) \times 2x$	$f'(x^2) \times 2x$	
Review Exercise 7	$\frac{25}{289}$	$-\frac{25}{289}$	
Review Exercise 26a			Insert ", $u = 2x - 3$" at end of answer.
Review Exercise 27a			Insert ", $u = 2x - 3$" at end of answer.

CALCULUS AND VECTORS Chapter 3

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 2e	$t = 3$	$t = 2$	
Review of Prerequisite Skills 2i	$t = \pm\frac{9}{4}$	$t = \pm\frac{3}{2}$	
Review of Prerequisite Skills 8b	-1	1	
3.1 2f	$f''(x) = -\frac{-4x-4}{(x+1)^4}$	$f''(x) = -\frac{4}{(x+1)^3}$	
3.1 3e	$v(t) = \frac{1}{2}(t+1)^{\frac{1}{2}}$ $a(t) = -\frac{1}{4}(t+1)^{\frac{3}{2}}$	$v(t) = \frac{1}{2\sqrt{t+1}}$ $a(t) = -\frac{1}{4(\sqrt{t+1})^3}$	
3.1 4b ii	$7 < t < 9$	$7 < t$	
3.1 5c	after 3 s	$t > 3$	
3.1 10a	$\frac{105}{2}$	$\frac{105}{4}$	
3.1 10d	$0 < t < 6$ s	$0 < t < 3$ s	
3.1 11c			Insert "$t = 5$ s;" before given answer.
3.1 13a			Delete "on its journey into the universe".
3.1 13b			Delete "on its journey into the space".
3.1 17			In the line that begins with $\frac{dv}{dt}$, there should be a minus sign before the exponent $\frac{1}{2}$.

3.1 18	$F = \frac{m_0 \frac{d}{dt} v}{\sqrt{1 - \left(\frac{v}{c}\right)^2}}$	$F = m_0 \frac{d}{dt}\left(\frac{v}{\sqrt{1 - \left(\frac{v}{c}\right)^1}}\right)$	
3.2 8			min concentration ≐ 0.006 25, max concentration ≐ 0.0083".
3.2 10	\$31.50	\$80.50	
Mid-Chapter Review 4a	10 m/s	10 m/s^2	
Mid-Chapter Review 6	3.96 °C	30 °C	
Mid-Chapter Review 7h	$-\frac{185}{6}$	$-\frac{185}{16}$	
3.3 4	8.24 cm	82.4 cm	
3.4 19	$r_0 A$	$r_0^3 A$	
Review Exercise 3			Change both exponents by inserting negative sign in front of fraction, but still in exponent position.
Review Exercise 5	$t \leq 4.5s$	$t < 4.5$ s	
Review Exercise 10d ii	\$6.88	\$6.76	
Review Exercise 10d iii	\$5.01; \$5.01	\$4.99; \$4.99	
Review Exercise 13			Insert after given answer: Since $a > 0$ for all $t > 0$, the particle is accelerating.
Review Exercise 16	31.6 cm by 11.6 cm by 4.2 cm	31.6 m by 11.6 m by 4.2 m	
Review Exercise 23	34.4 m by 29.1 m	The two identical brick sides should have length 25 m; the fenced side and the corresponding brick side should	

		have length 40 m.	
Chapter 3 Test 3c	1 m/s, 1 m/s	1 m/s	
Chapter 3 Test 3e	2 m/s^2	2 m/s	
Chapter 3 Test 4b	min: 7.5	min: 6	
Chapter 3 Test 5b	22.9	22.9 m	

CALCULUS AND VECTORS Chapter 4

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 8c	–	+	
Review of Prerequisite Skills 9b	As $\to$ -∞, $f(x) \to -\infty$ As $\to \infty$, $f(x) \to \infty$	As $\to$ -∞, $f(x) \to \infty$ As $\to \infty$, $f(x) \to -\infty$	
Review of Prerequisite Skills 9d			Insert: As $x \to -\infty$, $f(x) \to -\infty$. As $x \to \infty$, $f(x) \to \infty$.
4.1 3 b. iii.	(2, 4)	(1, 4)	
4.1 8			Graph incorrect. See answer key.
4.2 1			Insert " or is undefined." after "is 0"
4.2 3c	minimum maximum	maximum minimum	
4.2 4c	(–3, 1, 0)	(–3.1, 0)	Graph incorrect. See answer key.
4.2 6b			Graph incorrect. See answer key.
4.2 6c			Graph incorrect. See answer key.
4.2 15a			Insert ", $d = -9$" after "c = 0".
4.2 16b	maximum: (1.41, 39.6)	maximum: (–1.41, 39.6)	
4.3 2	$\lim_{x \to \infty} f(x) = k$, where $k \in R$, or $\lim_{x \to \infty} f(x) = k$, where $k \in R$	$\lim_{x \to \infty} f(x) = k$, where $k \in R$, or $\lim_{x \to -\infty} f(x) = k$, where $k \in R$	Insert minus sign as shown.

4.3 3d			Insert ", $-\infty$ " after given answer.
4.3 6c			Graph incorrect. See answer key.
4.3 9d			Delete line "$y = 1$".
Mid-Chapter Review 1c	$(3, \infty)$	$(-3, \infty)$	
Mid-Chapter Review 3			Graph incorrect. See answer key.
Mid-Chapter Review 4b	$0, \pm 3\sqrt{3}$	± 3	
Mid-Chapter Review 12b			Insert "The velocity is always decreasing."
Mid-Chapter Review 16a, b, c			Insert at the end of the given answer: "; As $x \to -\infty$, the function approaches the horizontal asymptote from above. As $x \to \infty$, the function approaches the horizontal asymptote from below."
Mid-Chapter Review 16d			Delete "; $y = 2$".
4.4 2a	-105 20	-90 18	
4.4 3a	Delete given answer.	$(2, -36)$	
4.4 8a Student Book	$4x$	$4x^5$	
4.4 14			Change answer to: "If n is odd but not 1, then there is an inflection point at $x = c$. If n is even, there is not an inflection point."
Review Exercise 3a			Insert at end of given answer: "(3, 47), local maximum; tangent is horizontal"
Review	$x = 5$	$x = 3$	

Exercise 8a ii			
Review Exercise 16a	$y = 2$	$x = 2$	
Review Exercise 17			Delete "y-intercept: 8;"
Chapter 4 Test 1c	(–9, 1), (–6, –2), (0, 1), (8, –2)	(–9, 2), (–6, –4), (0, 2), (8, –4)	
Chapter 4 Test 4			Insert "vertical asymptote at $x = 3$;" after "hole at $x = -2$;"

CALCULUS AND VECTORS Chapter 5

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 7d			Change $\frac{\pi}{2}$ to θ twice.
Review of Prerequisite Skills 8f	2π	π	
Review of Prerequisite Skills 10a	$= \frac{\sin^2 x + \cos^2 x}{\cos x + \sin x}$ $= \frac{1}{\cos x + \sin x}$	$= \frac{\sin^2 x + \cos^2 x}{\cos x \sin x}$ $= \frac{1}{\cos x \sin x}$	
Review of Prerequisite Skills 10b	$\frac{\sin x}{1 - \sin^2 x} = \tan x + \sec x$	$\frac{\sin x}{1 - \sin^2 x} = \tan x \sec x$	
5.1 3e Student Book	et^2	e^{t^2}	
5.1 11a	$-3e^{3x}$	$-3e^{x}$	
5.1 13b			Delete " – " between $\frac{1}{4}$ and e in first line.
5.1 14 i. Student Book	$\left(1 + \frac{1}{x}\right)$	$\left(1 + \frac{1}{x}\right)^x$	
5.1 17b			In first line, change t to x in exponent twice.
5.1 17c			In seventh line, change t to x in exponent twice.
5.2 2d	x^3	$2x^3$ (in the	

		denominator)	
Mid-Chapter Review 5b	(10^{2x})	$(10^{0.2x})$	
Mid-Chapter Review 13			Graph incorrect. See answer key.
5.4 7b	8	16	
5.4 11a	$\frac{\pi}{4}$ $\frac{3\pi}{4}$	$\frac{\pi}{8}$ $\frac{3\pi}{8}$	
5.4 11b	4	16	
5.5 1b	$-2\sec 2x$	$-2\sec^2 2x$	
5.5 1c	$\tan(x^2)$	$\tan(x^3)$	
5.5 2a	$y = 2\left(x - \frac{\pi}{4}\right)$	$y = 2x - \frac{\pi}{2} + 1$	
5.5 2b	$y = -2x$	$y = 4x$	
5.5 3f	$\frac{1}{2\sqrt{x}} e^{\tan\sqrt{x}} \sec^2 2\sqrt{x}$		Delete the 2 after $\sec^2$, as shown.
5.5 7	at $x = \frac{\pi}{2}$	at $x = -\frac{\pi}{2}$	
5.5 11	$-8\csc^2 x \cot x$	$32\csc^2(4x)\cot(4x)$	
Review Exercise 23b		$f''(x) = 2\sec^3 x + 2\sec x \tan^2 x$	
Chapter 5 Test 1b	$3e^{x^2+3x}$	3^{x^2+3x}	
Chapter 5 Test 8	$\left(-4, -\frac{1}{e^4}\right)$	$-\frac{1}{e^4}$	
Chapter 5 Test 9c	at $x = -\frac{\pi}{6}$ at $x = -\frac{5\pi}{6}$	at $(-\frac{\pi}{6}, 2.598)$ at $(-\frac{5\pi}{6}, -2.598)$	

CALCULUS AND VECTORS Chapter 6

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 4	$\doteq 50$	$= 50$	Change approximate to equals.
6.1 2	qualities	quantities	Change two times, once at end of each sentence.
6.3 2a, b, c, d			Same comment as above about scale of drawings and a note.
6.3 4c		Arrowhead should be at opposite end.	
6.3 4d		Arrowhead should be at opposite end.	
6.3 14	$2\vec{x} + \vec{y}$	$\vec{y}$	
6.5 12			Delete vertical bars around both vectors in fourth line.
6.6 2			Move negative in front of fraction instead of in numerator.
6.6 6c			Move negative in front of fraction.
6.8 12b	(2, 1)	(2, –1)	Change in both second and fourth lines.
Chapter 6 Test 7	relative to x	from $\vec{x}$ toward $\vec{y}$	

CALCULUS AND VECTORS Chapter 7

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 5a, b, c	a. $(x, y, 0)$ b. $(x, 0, z)$ c. $(0, y, z)$	a. on the xy-plane b. on the xz-plane c. on the yz-plane	
7.1 5a	N 22.6° W	N 22.6° E	
7.1 13a	7	7 N	
7.1 16	143.48	143.48 N	
7.2 3	304.14	304.14 km/h	
7.2 4	30°	60°	
7.2 9b			Answer should just

			be "2 h".
7.2 10a			Insert at end ", 53.1° downstream to the bank."
7.2 13a	68 m	66.0 m	
7.3 3		$\vec{a} = \vec{i}, \vec{b} = \vec{j}, \vec{c} = -\vec{i}, \vec{a} \bullet \vec{b} = 0, \vec{b} \bullet \vec{c} = 0$, but $\vec{a} = -\vec{c}$	
7.4 17		Delete "or $-\frac{44}{65}$"	
Mid-Chapter Review 16a	6.12 m	61.2 m	
7.6 3d	$\vec{a} \times \vec{b}$	$\vec{a} \cdot \vec{b}$	
7.6 13	$\rightarrow 0$	$\vec{0}$	
Review Exercise 17a	$a = 4$ and $b = -4$	$a = -4$ and $b = 4$	
Review Exercise 17b		Replace with: $a = b + 9$	
Review Exercise 17c	$\frac{2}{\sqrt{5}}$	$\frac{2}{3\sqrt{5}}$	
Review Exercise 20d	(–1, 1, 3)	(–5, –2, –1)	
Review Exercise 29a			Remove vertical bars around both vectors.
35		Insert at beginning of answer: $\vec{a} \cdot \vec{b} = 0 - 20 + 12 = -8$	
Chapter 7 Test 1d	0	(0, 0, 0)	
Chapter 7 Test 8a	0 33	$\vec{x} \cdot \vec{y} = 0$ $\lvert\vec{x} + \vec{y}\rvert = 33$ $\lvert\vec{x} - \vec{y}\rvert = 33$	

CALCULUS AND VECTORS Chapter 8

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 6	$\sqrt{2802}$	about 52.4	
Review of Prerequisite			Art should show four vectors, each with tail at the origin and

Skills 8a, b, c, d			head at A, B, C, or D, instead of just the points.
8.1 10b	$(0, -1.2)$	$(0, 1.2)$	
Mid-Chapter Review 2b	$\left(-\frac{14}{3}, 0\right)$	$(-3, 0)$	
8.4 4b	$(-2, 3, -2)$	$(-2, 3, 2)$	
8.5 10	$21x - 15y - z - 1 = 0$	$9x - 15y - z + 11 = 0$	
8.6 10b			Graph is incorrect; should go through $(0, 0, 3)$ instead of $(0, -3, 0)$.
Review Exercise 1		Insert vector equation after "For example:" $\vec{r} = (1,2,-1) + s(1,-1,2) + t(1,0,3), s,t \in \mathbf{R}$	
Review Exercise 12			Insert symmetric form at end of answer: $\frac{x}{1} = \frac{z-7}{2}, y = 0$
Review Exercise 14a			Graph should go through $(6, 0, 0)$. The other two intercepts are correct.
Review Exercise 15b		Insert vector and parametric equations before the Cartesian equation: $\left(0,0,\frac{18}{11}\right) + s\left(1,0,\frac{4}{11}\right) + t(0,1,0), s,t \in \mathbf{R}$ $x = s, y = t, z = \frac{4}{11}s + \frac{18}{11}, s,t \in \mathbf{R}$	
Review Exercise 21a	$44.2°$	$17.0°$	
Review Exercise 33b	$\frac{x-3}{6} = \frac{x-5}{-2}$	$\frac{y-3}{6} = \frac{z-5}{-2}$	
Review Exercise 33c	$\frac{x-3}{-13} = \frac{x-5}{14}$	$\frac{y-3}{-13} = \frac{z-5}{14}$	
Review Exercise 33e			Delete "$a = 0$, $b = 6$, $c = 4$;" Insert parametric and symmetric equations after vector equation: $x = 1, y = 3 + 6t, z = 5 + 4t, t \in \mathbf{R}$ $x = 1, \frac{y-3}{6} = \frac{z-5}{4}$
Review Exercise 33f			Insert symmetric equation after parametric form: $x = 1, \frac{y-3}{1} = \frac{z-5}{6}$

CALCULUS AND VECTORS Chapter 9

Location	This text, expression, etc. …	Should be changed to this:	Notes
Review of Prerequisite Skills 2c	$-1 + -2t$	$-1 - 2t$	
Review of Prerequisite Skills 7			Insert after given answer: $-3x + z = 0$
9.1 4a	$+ 4 = 0$	$- 4 = 0$	
9.1 4b	$2x - 3y + 2x - 3y$	$2x - 3y$	
Mid-Chapter Review 9b			Delete $t \in \mathbf{R}$.
9.4 2a			Insert $x - y + z = 4$ right before the period.
9.4 5a			Insert "$-3 \times$" after "=" in first line.
9.5 7b	about 3.28	about 3.81	
Review Exercise 9a	Delete given answer.	$\left(\frac{42}{83}, -\frac{34}{83}, \frac{18}{83}\right)$	
Review Exercise 10a, b, c			Graphs not shown. See answer key.
Review Exercise 12a	$\times$	$\bullet$	