

# Mathematics: analysis and approaches SL

## Updates

All of the updates on this list have been made to the Online Course Book and may also be included in your Print Course Book, depending on when it was printed.

### Chapter 1

Section	Page	Exercise/question and correction
In chapter	9	Ch.1, Example 2: Change the numerator of U3 to U2.
In chapter	10	Ex1B, 2b, Change to 1, 4, 16, 64
In chapter	28	Ex 1I, 1d, Insert '+' before 288
In chapter	39	Ex1L, Q1 stem: Delete 'final'
In chapter	39	Ex1L, Q2i: Insert 'annual' - What is the annual simple interest...
In chapter	53	Example 33: Rubric was changed -- should be which term will contain $x^3$
In chapter	54	Exercise 1O, q.3b: Delete 'Hence'
In chapter	54	Exercise 1O, q5: Change '?' to '7'
In chapter	58	Chapter review, q.1dii: $U_{10}=2$
In chapter	59	Chapter review, q.19: RHS: $-x^2 + 17x - 45$
In chapter	66	Key point box, first diagram on the left: Delete diagonal line in one-to-one mapping
Answers	648	Ex1B answers, 2e add ', $U_{n+1} = U_n \times U_{n-1}$ '
Answers	648	Ex 1E, 4: Delete minus symbol
Answers	648	Ex1E, 4: Change '12' to '14'
Answers	648	Ex1A, 3b: Change 6, $\frac{1}{3}$ , $\frac{1}{6}$ to 6, 3, $\frac{3}{2}$
Answers	648	Ex 1C, 2f: Change second sum from 11 to 10 and 7 to 6
Answers	649	Exercise 1G Q1 'u11' should be u15'
Answers	649	Exercise 1G Q2 answer should be $u_{20} = -56.3$ (3 sf)
Answers	649	Exercise 1I Q1b third part should be $r = -3$
Answers	649	Exercise 1I Q1b fourth part answer should be 2460
Answers	649	Ex1L, 4: Change $d=2$ to $d=1$
Answers	649	Ex 1G, 1: Change 2306 to 2310 (3 sf)
Answers	649	Ex1J, 1d: Change $r=2$ to $r=-2$
Answers	649	Ex1I: 1f: second line, change $u_1$ to $u_2$
Answers	649	Ex1I, 1f: Change 42 to -42
Answers	649	Ex1I, q1: Delete part g
Answers	650	Exercise 1K Q1c answer should be 39 (not 30)
Answers	650	Exercise 1K Q2 add ', $u_1 = -11$ after 3
Answers	650	Exercise 1L Q2i final answer should be 3.38%.
Answers	650	Exercise 1L Q2ii answer should be 23846 Columbian Pesos
Answers	650	Exercise 1M Q3 should refer to d not e
Answers	650	Ex1K, Q1c: Answer should be 31
Answers	650	Ex1k, 3: Change $u_n$ to $u_1$

Answers	650	Ex1I, 1d: Change 24984.80 to 24984.70
Answers	650	Ex1M, 2b: Delete '2014'
Answers	650	Ex1L, 4: Change 26410.18 to 26410.17
Answers	651	Chapter review, 1biv: $S_8 = -72$
Answers	651	Chapter review, 1civ: Answer is 3968.75
Answers	651	Chapter review, 1div: 3069
Answers	651	Exercise 1O, q1b: Change ' $75582720x^7$ ' to ' $75582720x^{2v^8}$ '
Answers	651	Exercise 1O, q1c: Change ' $-4320y^4$ ' to ' $-4320y^3$ '
Answers	651	Exercise 1O, q2b: Change ' $-96$ ' to ' $-96x$ '
Answers	651	Exercise 1O, q3b: Change ' $11340x^5$ ' to ' $-11340x^5$ '
Answers	651	Chapter review, q.1: Missing answers
Answers	651	Chapter review, q.1biii: $u_{10} = 2$
Answers	651	Chapter review, q.1biv: $s_8 = -72$
Answers	651	Ex1O, q1b: Replace with $75582720x^2 y^8$
Answers	652	Chapter review, q2 $S_{20} = -550$
Answers	652	Chapter review, q4: $n = 4$
Answers	652	Chapter review, q.6: Insert Becase $-1 < n < 1$ , $n = -0.5$ $s < \inf >$ $1/6$
Answers	652	Chapter review, q.8: $u_{10} = 383$
Answers	652	Chapter review, q.12: $r = 2.248\%$
Answers	652	Chapter review, q.1div: $s_{10}: 3069$
Answers	652	Chapter review, 19: See file for changes
Answers	653	Chapter review, q.23a: Change \$3481 to \$3482; Change \$481 to \$482
Answers	653	Chapter review, q.24a: Change \$6130.41 to \$6130.42
Answers	653	Chapter review, q.30: Change $r$ to $ r $ ; add $r = \pm 1/3$ ; before final line add $r = 1/3$ ; after final line add $r = 1/3$ and $S < \inf > -405$
Answers	653	Chapter review, q.26: Insert value for $n$
Answers	653	Chapter review, 24b: Change 28.76 to 29.76 and 20 to 30 years

## Chapter 2

Section	Page	Exercise/question and correction
In chapter	92	Ex 2H, 1dii, Change 514.40 to 114.40
In chapter	97	Ex 2L, 4i: Type -- 'or' should be 'for'
In chapter	103	Chapter review, q.11d: Change 27 to 35
In chapter	103	Chapter review, 13c: Label where the line crosses the y-axis as 12: and where the line crosses the x-axis as 24
In chapter	105	Chapter review, 24: Change $r(5)$ to $rr(5)$
Answers	654	Skills check, 3c: Change to $-3/2$
Answers	655	Exercise 2C, 1c: Replaced graph
Answers	655	Ex2B, 4c: Insert recurring symbol over 37.7
Answers	655	Ex2B, 2e: Change final 12 to 13.
Answers	656	Ex2D, 1k: Change domain to $x \leq -1$ or $x \geq 1$ , $]-\infty, -1] \cup [1, \infty[$ or $(-\infty, -1] \cup [1, \infty)$ ; Change range to $y \geq 3$ , $[3, \infty[$ or $[3, \infty)$
Answers	656	Ex2D, 1l: Change to 'Not a function.'
Answers	656	Ex2D, 2a: cut graph and move subsequent graphs up one question part: see file for part d graph
Answers	656	Ex2D, 1b: Change middle domain to $-2$ .

Answers	656	Ex2D, 2b: Change range to $y \neq 1$ , $]-\infty, 1[ \cup ]1, \infty[$ or $(-\infty, 1) \cup (1, \infty)$
Answers	656	Ex2D, 2c: Change range to $y \in \mathbb{R}$ , $y \neq 1$ , $]-\infty, 1[ \cup ]1, \infty[$ or $(-\infty, 1) \cup (1, \infty)$
Answers	657	Ex2F: 5c: Change 'represented' to 'represents'
Answers	657	Ex2F, 1ai: Change final 6 to 14
Answers	657	Ex2E, 1b: Change x to n
Answers	657	Ex2E, 1b: Change range to $C(n) \geq 40$ , $[40, \infty[$ or $[40, \infty)$
Answers	657	Ex2E, 1c: Change 14 to 124
Answers	657	Ex2G, 1b: Final range - change 2 to 3
Answers	657	Ex2E, 2c: Change to approx equals symbol
Answers	658	Ex2H, 1a: Change x to n
Answers	658	Ex2H, 1cii: Change n to 124
Answers	658	Ex2H, 2a: Delete dollar sign
Answers	658	Ex2I, 4ai: Change X to 1.25 in 3 instances; change range to $v \geq 2.875$ . $[2.875, \infty[$ or $[2.875, \infty)$
Answers	658	Ex2H, 2ci: Delete dollar signs x 2
Answers	658	Ex2I, 3b: Replace graph (see file)
Answers	658	Ex2I, 4aiv: Change domain to $x \leq 2$ , $]-\infty, 2]$ or $(-\infty, 2]$ ; Change first range parameter to $v \leq 1$ . $]-\infty, 1]$ or $(-\infty, 1]$
Answers	659	Ex2I, 6e: Change n to y in two instances
Answers	659	Ex2J, 4: Insert 'No solution because for $m = -2$ we get the constant function $v = 2$ . which has no inverse.'
Answers	659	Chapter review, 2e: Change range to $-3 \leq x \leq -1$ or $[-3, -1]$
Answers	660	Chapter review, delete q.4 at renumber subsequent qs.
Answers	660	Chapter review, 7c (old): Replaced graph
Answers	660	Chapter review 7aii (old): Change to 4
Answers	660	Chapter review 7b (old): Change 1/2 to 4 in two instances.
Answers	661	Chapter review 12d (old): Change 27 to 35; change 12 to 20
Answers	661	Chapter review 20c (old): In fraction, change C to P and p to $f^{-1}(p)$
Answers	661	Chapter review 20d (old): Change p to $f^{-1}(1000)$

### Chapter 3

Section	Page	Exercise/question and correction
In chapter	108	delete 'defined' - first sentence
In chapter	119	though = through
In chapter	127	remove extra full stop in International mindedness
In chapter	129	reword Ex 3I Q3a as Find a linear model for each plan, where total cost is a function of number of months. Identify the variables you use
In chapter	143	Exercise 3L Q5 minor correction: The inequality restriction on the domain should not really be split over two lines.
In chapter	143	Ex3L: To be coherent with the solution, please change to $x^2 - 2x - 5$
In chapter	143	Ex 3L, Q6: $fx = x^2 - 2x - 5$
In chapter	145	Investigation 6, text of question 2 and in header of table: $-b/a$ and $f(-b/a)$ need to be $-b/2a$ and $f(-b/2a)$ , respectively
In chapter	151	Remove gridlines and numbering from graph Q5. Keep 0 and x v axis labels
In chapter	151	Ex 3N, Q5: remove tick marks from axis

In chapter	156	Example 28 (b) - x (in question) should be n
In chapter	175	Example 40 part (b) In the explanation of the solution the word "of" is missing. It should say: "After x increases of \$0.50 ..."
Answers	663	Ex3G, 1h: Change $-1/9$ to $-1/3$
Answers	663	Ex3G, 3b: Insert graph (see file)
Answers	664	Graph in 5 d - The x-coordinate of the point of the line graphed in red is missing a decimal point. It should read (461.538, 0).
Answers	664	Ex3K, 1: Insert graph for each question part (see file)
Answers	664	Ex3I, 5d: Label the x=intersect 461.538
Answers	664	3I, 5e: Change '75' to '84.40; 2451 printers'
Answers	664	Change x intersect to -3.9
Answers	665	Ex 3L, 6: Change range to $-6 \leq f(x) \leq 3$ ; The domain is between -2 and 4. not IR
Answers	665	Ex3N, q6e: The marks on the x and y-axis are in 1 to 1, not 5 to 5.
Answers	666	Ex3R, q6: Change 1.17 to 1.18 and -1.97 to -1.96
Answers	666	Ex3R, q9: Change to (-0.802,-8.64) and (1.80,-3.96)
Answers	666	Ex3R, 10: Change to (-2.92,-4.50) and (0.915,3.16)
Answers	666	Ex3W, 2c: Change 1.26 to 1.27
Answers	666	Ex3X, 3c: Insert $=4400+15x-0.5x^2$
Answers	666	Ex3X, 3e: Missing question part: $\bullet 4400+15x-0.5x^2 > 0$ Using GDC: $x < 110$
Answers	666	Ex3O, 3b: Change x to t
Answers	666	Ex3W, 2b: Change inequalities to less than symbols
Answers	666	Ex3W, 2c: Change inequalities to less than symbols
Answers	666	Ex3X, 3e: missing -- $\bullet 0 \leq x \leq 110$ , where x is an integer
Answers	666	Ex3X, Q4b: some text missing
Answers	667	Chapter review, 12: Change (4,0) to (-4,0) and (-4,0) to (4,0)
Answers	667	Chapter review, 4d: Change vertical to horizontal; change $1/3$
Answers	667	Chapter review, 14c: Change -1.11 to -1.1
Answers	667	Chapter review, 5a: Change $x=2$ to $x=-2$
Answers	667	Chapter review, 5c: Change coordinates to (0,6)
Answers	667	Chapter review, 7e: Change to $-7/3, 1$
Answers	668	Chapter review, 21a: Add to final line 'or $= \pm 3(\sqrt{2})/2$ '

## Chapter 4

Section	Page	Exercise/question and correction
In chapter	211	ESQs, Q20d: Change 434 to 435
Answers	669	4C, 2: Change axes labels
Answers	669	4B, 3c: Correct points
Answers	669	4C, 3: Change 1.25 to 1.33
Answers	670	4E, 3: Change 1 to q and q to 1
Answers	671	4E, 5d: change $-13/3$ to $-17/3$
Answers	671	4E, 8a: The green line should be at $y=35$ and should only start at $x = 0$
Answers	672	4E, 14c: Change to coordinates (0, -0.5)

## Chapter 5

Section	Page	Exercise/question and correction
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In chapter	220	After first paragraph, insert: Since $f$ increases without bound as $x$ approaches $k$ , the limit therefore does not exist, since the limit is not a real number
In chapter	229	Ex 5D, 2c: Change $r$ to $x$
In chapter	249	5M, 3: Delete 'of the gradient of the'
In chapter	249	5M, 4: change 'value' to 'value(s)'
In chapter	258	Ex 25, ci: change -1.618 to -0.618
In chapter	273	Chapter review, 21a: Typo - delete 'between'
In chapter	273	Chapter review, 19e: Change $h=h(t)$ to $y=h(t)$
In chapter	273	21a: delete repeated between
In chapter	273	In expression, change first $h$ to $y$
Answers	674	5F, 7b: 9th line - flip inequality
Answers	674	5I, 2: $y = -1/3x - 2$
Answers	674	5D, 2c: change -3 to 3
Answers	675	5J, 2: insert - 'equation of normal' and 'equation of tangent: $y = -1/24 x + 7/8$ '
Answers	675	5L, 10cii: Change 2.59 to $70/27$
Answers	675	5N, 8a: insert - and (0, -16)
Answers	675	5N, 8b: flip final inequality
Answers	675	5K, 2d: change $1/4$ to $1/16$ in two instances
Answers	675	5N, 9c: Change horizontal to non-horizontal
Answers	675	5O, 1b: Amend graph - see file
Answers	675	5N, 9c: insert - and (0,2) = horizontal inflexion point
Answers	676	5P, 1: Change graphs (see file)
Answers	676	5R, 1b: Change text to 'At this instant, the particle is 1 metre from the origin in the positive direction, traveling towards the origin at $3 \text{ ms}^{-1}$ and is not accelerating '
Answers	676	5P, 2: Change graphs (see file)
Answers	676	5R, 2ci: Change 1 to 12
Answers	676	5R, 6a: insert 6
Answers	676	5R, 6ci: Replace with $0 < t < 1.5$ eastward
Answers	676	5R, 6cii: Replace with $3 < t < 4.5$ westward
Answers	677	Chapter review, 11e: Change graph (see file)
Answers	677	Chapter review 18: Change second inequality to $4 \leq t \leq 4.6$
Answers	677	Chapter review, 12b: insert $0 <$ before second inequality
Answers	677	Chapter review, old 18: replace $t$ with $2t$
Answers	678	Chapter review, old 24c: Replace 5 with 10 and 2250 with 15000
Answers	678	Chapter review, old 21e: change graph (see file), after maximum insert : 640 (3sf)
Answers	678	Chapter review, old 21f: Change 22.4 to 22.9, Change 113 to 112

## Chapter 6

Section	Page	Exercise/question and correction
In chapter	298	Ex 6F, Q4: Change 10 hours to 11 hours
In chapter	301	Ex 6G, Q7: Change $q.7$ to $q.6$
In chapter	307	Ex 6I, 1c: Change -0 to 0
In chapter	349	Chapter review, 20c: Change -2 to -3
Answers	680	Ex 6C, 3: Change part a and b to ai and ii
Answers	680	Ex 6C 3b: Add in question part: bi Discrete ii Continuous

Answers	680	Ex 6G, 3b: Change 2000 to 2067.5; 1200 to 1272.5; 3800 to 3976.25; 3800 to 3976.25
Answers	680	Ex 6D 1b: Change 12.803 to 12.8036
Answers	680	Ex 3c: Insert 2.5k onto the scale
Answers	680	Ex 6D, 7d: Change 4 to 3.9
Answers	680	Ex 6G, 5: Add labels to axes
Answers	681	Ex 6I, 1e: Change 34300 to 34314; Change 185 to 185.2
Answers	681	Ex 6I, 2b: Change 3.33 to 3.34
Answers	681	Ex 6I, 2c: Change 20.7 to 20.6
Answers	681	Ex 6H, 3b: Replace graph (see file)
Answers	681	Ex 6I, 3b: Change 1.40 to 1.38
Answers	681	Review, 12a: Change 6.92 to 6.91
Answers	681	Ex 6H, 3c: Change 119 to 73
Answers	681	Ex 6H, 3d: Change 123 to 82; Change 114 to 60; Change 9 to 22
Answers	681	Ex 6H, 3d: Change 20 to 3
Answers	681	Ex 6J, 2a: Change 9.11 to 9.108
Answers	681	Ex 6J, 2b: Change 9.06 to 9.054
Answers	681	Ex 6J, 2c: Change variance to mean
Answers	681	Ex 6J, 2c: Change 9 to 3
Answers	681	Ex 6H, 5: Change 1B to 1C; Change 2C to 2B
Answers	682	Chapter review 22cii: Change 1.26 to 1.62
Answers	682	Chapter review, 24b: Insert lower bound in each column

## Chapter 7

Section	Page	Exercise/question and correction
Answers	683	7B, 2c: Insert questino part: c The price of the motobike can never fall below 0.
Answers	683	7B, 3a: Change 0.707 to 0.698
Answers	684	7D, 7a: Change 33.0 to 32.95
Answers	684	7D, 8b: Change 2.19 to 2.99; change 2.91 to 2.19
Answers	684	7C, 1c: Update the graph (see file)
Answers	684	7D, 2c: Change 1.589 to 1.587
Answers	684	7D, 9a: Change 14.858 to 14.839
Answers	684	7D, 9bii: Change 14.8 to 14.84; Change 14.86 to 14.84
Answers	684	7D, 10b: Change 118 to 117.98
Answers	684	7C, 3c: The last point should be at (20,15)
Answers	684	7E, 3: Change 32.5 to 31.7; Change 0.697 to 0.708
Answers	684	7D, 1: Change horse to hours
Answers	684	7D, 5b: Change 6.30 to 6.32
Answers	684	7D, 5c: Change 69.6 to 69.4
Answers	685	Chapter review, 3c: Change 2050 to 40
Answers	685	Chapter review, 17cii: Change $\bar{x}$ to $\bar{y}$
Answers	685	Chapter review 5e: Change 131 to 132
Answers	685	Chapter review 6a: Change 53750 to 53754
Answers	685	Chapter review 6b: Change 136210 to 136354
Answers	685	Chapter review 13ci: Change 21.3 to 20.9; Swap x and y
Answers	685	Chapter review 13cii: Swap x and y
Answers	685	Chapter review, 13d: Change 21.3 to 20.9
Answers	685	Chapter review, 8a: Change 2.01 to 2.03

Answers	685	Chapter review 8d: Change 8.84 to 8.86
Answers	685	Chapter review, 9d: Change 342 to 343
Answers	686	Chapter review, 20a: The scatter diagram has been moved down by 4 and to the right by 5.

## Chapter 8

Section	Page	Exercise/question and correction
In chapter	388	Review, 5b: Delete all numbers in the Venn diagram, apart from 6x and x
In chapter	389	Review, 10b: Change mouse to rabbit
In chapter	391	Review, 19: Delete space in 'random'
Answers	686	8A, 4b: Replace 'multiple' with 'multiple of 3'
Answers	686	8A, 4c: Change P(multiple) to P(multiple of 4)
Answers	686	8A, 7: Replace 'B' with 'coach'
Answers	686	8A, 8: Replace 'x' with 'P(green)'
Answers	687	8C, 1a: Label LH Venn as C; label RH Venn as B
Answers	687	8C, 4a: Label LH Venn as A; label RH Venn as B; Insert 'N' into RH Venn
Answers	687	8D, 1c: Replace with P(multiple of 3 or 4)
Answers	687	8C, 4c: Add N
Answers	687	8C, 5d: Delete 1, 3, 5, 7
Answers	688	8G, 9C: Replace 0.57 with 0.97
Answers	688	Review, 8: Replace diagram
Answers	688	8H, 2d: Replace numerator with 4
Answers	688	Review, 8: Renumber question parts
Answers	688	Review, 8d: Replace with 0.045
Answers	688	Review, 10: In Venn diagram: Replace 11 with 1
Answers	688	Review, 10a: Change numerator to 1
Answers	688	Review, 15b: Renumber questions from here
Answers	688	Review, 15c: Insert colon after 6
Answers	688	Review, 15d: Insert colon after 5
Answers	688	Review, 15e: Insert colon after Impossible

## Chapter 9

Section	Page	Exercise/question and correction
In chapter	404	Ex9D, 7c: Delete question part (repeats part a)
In chapter	404	Review, 4c: Delete second 'he'
In chapter	421	Review, 9a: Delete 'find'
In chapter	428	Review, 22: Capitalise 'from'
Answers	690	Skills check, 2d: Delete question part
Answers	690	Ex9D, 3v: Change 3 to 4
Answers	691	9E, 4b: Replace 90400 with 90385
Answers	691	9F, 2c: Replace graph
Answers	691	9E, 6c: Replace 2043 with 2044
Answers	691	9D, 7a: Remove the two dashed lines, and insert a dashed horizontal line at $x=88.6$
Answers	691	9D, 7c: Delete question part (repeats part a)
Answers	692	9L, 3c: Replace 0.807 with 1.69
Answers	692	9M, 3q: Change exponential to 3
Answers	693	Review, 23b: Change 36.1 to 36.0



Answers	693	Review, 5f: Replace with 79
Answers	693	Review, 19: Replace with 2025
Answers	693	Review, 9b: Replace with -0.431
Answers	693	Review, 11a: Delete the green line
Answers	693	Review, 25b: Replace with $\ln(e^{x^3}/(x-1)^2)$
Answers	694	Review, 28e: Replace -9.82 with -9.79
Answers	694	Review, 28f: Replace 1.399 with 1.40; delete elipsis
Answers	694	Review, 30: Insert question label for part b

## Chapter 10

Section	Page	Exercise/question and correction
In chapter	433	Opening problem, line 8: replace function $h(t)$ with $a(t)=1/50e^{(-t/10+3.09)}$
In chapter	435	Key point at the top of the page, line 2: Replace $f(f(x)-g(x))$ with $F(x) = 1/(n+1) x^{(n+1)}+C$
In chapter	437	10B: Changes to the layout to reflect the numbering
In chapter	438	First hint box: Should say "... refer to the derivative rules in the Chapter 9 summary" rather than the Chapter 5 summary.
In chapter	443	10E, 3: Change velocity exponential to -1
In chapter	444	Hint box: Last sentence - "shaded reason" should be "shaded region"
In chapter	447	Hint box: Formula was corrected to match the current formula in the IB formula booklet for this course.
In chapter	448	Reflect box: Added "In Example 8, the total area ..."
In chapter	448	Last line of text before Example 9: Remove ' $a < c < b$ '
In chapter	449	10G stem: Insert 'and properties of integrals'.
In chapter	460	Chapter summary: Last property of definite integrals remove 'when $a < b < c$ '
In chapter	461	Review, 9: Swap the numerator and the denominator
In chapter	461	Review, 10: Corrected the text alignment in part b
In chapter	462	Review, 14: Remove brackets from around $x^2$
In chapter	462	Review, 17: Remove 'no GDC' icon
In chapter	463	Review, 18: Removed part e from the question
Answers	695	Skills check, 3d: Replace 4 with 3
Answers	696	10J, 7: Replace higher limit with 2
Answers	696	10J, 7: Replace lower limit with -1.11
Answers	696	10J, 8: Replace higher limit with 1.36
Answers	696	10J, 8: Replace lower limit with -7.36
Answers	696	10J, 5: Replace upper limit with 8.21
Answers	696	10J, 5: Replace lower limit with 0.15
Answers	696	10J, 6: Replace upper limit with 3.27
Answers	696	10J, 6: Replace lower limit with -0.77
Answers	697	10K, 4: Replace final answer with 440
Answers	697	10K, 5di: Replace upper limit with -1.09808
Answers	697	10K, 5di: Replace second lower limit with -1.09808
Answers	696	Review, 9a: Replace answer with $x^2 - 1/2x$
Answers	696	Review, 9b: Replace answer with $1/4 x^2 + 1/2 \ln x +c$
Answers	698	Review, 17e: Replace 0.020 with 0.0202
Answers	698	Review, 17f: Insert brackets around integral
Answers	698	Review, 17f: Replace 0.020 with 0.0202
Answers	698	Review, 16: First numerator: replace 2 with 1



## Chapter 11

Section	Page	Exercise/question and correction
In chapter	467	Skills check, 2: Delete stem
In chapter	470	11A, 1: Insert axes labels
In chapter	474	11B, 8: Change 6.7 to 6
In chapter	479	11C, 2b: Change 0 to x
In chapter	479	11C, 2c: Change 0 to x
In chapter	479	11C, 2d: Change 0 to x
In chapter	489	11G, 1: Replace $a = 10$ with $a = 8$
In chapter	489	11G, 1: Replace $c = 8$ with $c = 10$
In chapter	492	11H, 6: Replace 15m with 15km
In chapter	494	11I, 4c: Replace tower with flagpole
In chapter	495	11I, 10: Replace 'At B' with 'In Jeju'
In chapter	499	Review, 7: Delete 'of'
In chapter	500	Review, 15: Delete 'is'
In chapter	501	Review, 17, text before b: Replace 95 with 85
In chapter	502	Review, 24: Replace 12 with 13
In chapter	502	Review, 24: Replace 13 with 12
In chapter	502	Review, 24: Replace CD with AD
In chapter	502	Review, 24c: Replace C with D
In chapter	502	Review, 26: Replace fraction with $2\sqrt{13}/13$
Answers	699	11C, 4: Replace 28.4 with 28.3
Answers	699	11C, 8a: Replace 2592274.48 with 2592274.5
Answers	699	11C, 8c: $52^\circ$
Answers	699	11C, 8d: Replace m with cm
Answers	699	11E, 1c: Replace 2.73 with 2.74
Answers	699	11F, 6: Replace 9.94 with 9.96
Answers	699	11F, 7: Replace 15.3 with 15.4
Answers	699	11G, 2: Replace 145 with 145.2
Answers	699	11G, 3: Replace 118 with 117.9
Answers	699	11G, 4: Replace 127 with 126.5
Answers	699	11H, 3b: Replace 26.1 with 26.2
Answers	699	11I, 3b: Replace 6.68 with 6.85
Answers	699	11I, 3c: Replace with 102
Answers	699	11I, 4d: Replace 105 with 105.1
Answers	699	11I, 6b: Replace 48.4 with 48.3
Answers	699	11I, 6d: Replace 8.78 with 8.80
Answers	699	11I, 6e: Replace 25.5 with 25.6
Answers	700	Review, 14c: Replace 3.6 with 3.9
Answers	700	Review, 22b: Replace 114.47... with 114.48
Answers	700	Review, 22b: Replace 9.539... with 9.54
Answers	700	Review, 22c: Replace 9.539... with 9.54
Answers	700	Review, 23a: Delete elipsis
Answers	700	Review, 23a: Replace 3.1 with 3.05
Answers	700	Review, 23a: Replace 30.9 with 31.9
Answers	700	Review, 24c: Replace C with D
Answers	700	Review, 25a: Change 41.6 to 40.8

Answers	700	Review, 25a: Insert x 25 into the root
Answers	700	Review, 25b: Change 21.8 to 20.8
Answers	700	Review, 25b: Change 41.61 to 40.8
Answers	700	Review, 26a: Replace FG with FC
Answers	701	Review, 26e: Replace 3 with $\frac{3}{2}$
Answers	701	Review, 26e: Replace $\frac{6}{2}$ with $\frac{6}{4}$
Answers	701	Review, 26e: Replace 9 with $\frac{9}{4}$
Answers	701	Review, 26e: Replace final answer with $2\sqrt{13}/13$
Answers	701	Review, 29a: Replace 48.010 with 48.0
Answers	701	Review, 29c: Replace 51.010 with 51.0
Answers	701	Review, 30b: Replace 1220 with 1219
Answers	701	Review, 30c: Replace 89.650 with 89.7
Answers	700	Review, 7a: Change exponential to 3

## Chapter 12

Section	Page	Exercise/question and correction
In chapter	511	12A, 4c: Replace rad symbol with 'rad'
In chapter	511	12A, 4d: Replace rad symbol with 'rad'
In chapter	511	12A, 4e: Replace rad symbol with 'rad'
In chapter	511	12A, 4f: Replace rad symbol with 'rad'
In chapter	511	12A, 4g: Replace rad symbol with 'rad'
In chapter	511	12A, 4h: Replace rad symbol with 'rad'
In chapter	511	12A, 4i: Replace rad symbol with 'rad'
In chapter	511	12A, 4j: Replace rad symbol with 'rad'
In chapter	522	12F, 6b: Replace theta with x
In chapter	522	12F, 3a: Replace cos with sin
In chapter	527	12H, 1ii: Replace graph (see file)
In chapter	528	12H, 10a: Insert domain of f: for $0 \leq x \leq 2\pi$
In chapter	536	Review, 4b: Replace theta with x
In chapter	536	Review, 12: Insert x in the argument of sin
In chapter	537	Review, 20: Replace part a with $4\cos^2 \theta + \cos \theta + 1$
In chapter	539	Review, 30b: Replace graph (see file)
Answers	702	12D, 1b: Replace 8.6 with 8.63
Answers	703	12G, 3b: Replace 2 with 3
Answers	703	12H, 4: Replace with (0.824,0), (0.824,0)
Answers	703	12H, 5: Replace with (-2.38,0)
Answers	703	12H, 7: Replace with (-1.29,0)
Answers	704	12I, 13: Change to $16\pi/3 - 16$
Answers	703	12I, 1e: Replace graph (see file)
Answers	704	12I, 2a: Change 1.24 to 1.25
Answers	704	12J, 1e: Insert 0:46 am
Answers	704	12J, 3c: Remove brackets
Answers	704	12J, 3d: Change to 18
Answers	704	12J, 7b: Change cm to m
Answers	704	12J, 7c: Change to 0.09s
Answers	704	12J, 8: Delete q
Answers	705	24 onward: Renumber questions from here
Answers	704	Exam-style questions: Move the header to before q21
Answers	704	Review, 15a: Change to -0.824, 0.824

Answers	704	Review, 15b: Change to 1.14
Answers	704	Review, 18b: Change to 19.2
Answers	704	Review, 18d: Change to 29.4
Answers	704	Review, 21b: Change to 58.9
Answers	705	Review, 24: $\cos t = 1 \Rightarrow t = 0, 2\pi$
Answers	705	Review, 24: $\cos t - 1 = 0$
Answers	705	Review, 27d: Insert graph for part d
Answers	705	Review, 27e: Renumber as part e
Answers	705	Review, 28bi: Change 3 to 6cm
Answers	705	Review, 28bii: $\theta = \pi/18$
Answers	705	Review, 30aiii: Change O to IR
Answers	706	Review, 31b: Change $11\pi/6$ to $5\pi/6$
Answers	706	Review, 31b: Change $-\pi/6$ to $-7\pi/6$
Answers	704	Review, 3a: Insert rad after 6/5

### Chapter 13

Section	Page	Exercise/question and correction
In chapter	547	Example 2b, RHS: Rephrased as "Instead of using the product rule like you did in example 1 b, you can rewrite...."
In chapter	548	13B, 4: The x should not be under the radical sign
In chapter	549	Example 4a, RHS: "To find the x-intercepts, set the function equal to 0 and solve for x. in the given domain."
In chapter	552	Investigation 2: The sentence below 4 a and b was indented to the right (to make it part of O4).
In chapter	557	Example 9d, RHS, penultimate line: Change domain to $0 < x \leq \pi$
In chapter	558	13E, 2: In the diagram the point with coordinates $(4 \cos(\theta), 4 \sin(\theta))$ should be labeled Q and it looks like it is labeled $\cap$
In chapter	558	13E, 3b: In the formula for volume, change the coefficient of $h^2$ from 24 to 12
In chapter	559	Investigation 3: Change 4 to "What can you use as a basis for determining the antiderivatives of many functions?"
In chapter	559	Hint box: Corrected alignment
In chapter	570	Example 14b, RHS: The top line should be "on[2,5]"
In chapter	574	13J, 2: In stem, it should read "for $t \geq 0$ "
In chapter	578	Exam-style questions, 9-12: Remove the non-GDC icon
In chapter	578	Exam-style questions, 12a: Remove the 2 before the $\pi$ in the domain
In chapter	578	Exam-style questions, 12c: Clarify that R is the region enclosed by <i>both</i> axes
In chapter	578	Exam-style questions, 12d: Deleted
In chapter	579	Exam-style questions, 13: The function should be $f(x) = \sin 2x + \cos x$
In chapter	579	Exam-style questions, 16a: $f(x) \leq 0$ should be $f(x) \geq 0$
In chapter	579	Exam-style questions, 16b: The coordinates for point B should be $B(\pi + x, b)$
Answers	706	13A, 10: Change $2\cos^2(4x)$ to $2x^2(2x)$
Answers	706	13A, 10: Change $-2\sin^2(4x)$ to $-2\sin^2(2x)$
Answers	706	13C, 3: Add minus symbol
Answers	706	13C, 11c: Delete local maxima
Answers	706	13C, 13b: Delete end points
Answers	707	13D, 5b: Delete apostrophe

Answers	708	13I, 5a: Change semi colon to U
Answers	709	Review, 10a: Insert parentheses around integral
Answers	709	Review 10b: Insert parentheses around integral
Answers	709	Review, 15c: Change answer to 2.07
Answers	709	Review, 12ci: Change upper limit to 2.36
Answers	709	Review, 12c: Renumber question part as c
Answers	709	Review, 12d: Insert question part d: $-1 \leq \sin(2x) \leq 1$ - $1 \leq 1 + \sin(2x) \leq 1 + 1$ $0 \leq 1 + \sin(2x) \leq 2$ $\text{So } \sin(1 + \sin(2x)) \leq 0 \text{ for all } x \text{ real}$
Answers	709	Review, 15c: Change answer to 2.11 or 2.07 using 3 sf for a and b.
Answers	710	Review, 15e: Change upper limit to 1.96
Answers	710	Review, 15e: Change lower limit to 1.02
Answers	710	Review, 15e: Change upper limit to 2.59
Answers	710	Review, 15e: Change lower limit to 1.96
Answers	710	Review, 16c: Change 2.44 to 2.24
Answers	710	Review, 16d: Change 0.6520... to 0.652

## Chapter 14

Section	Page	Exercise/question and correction
In chapter	622	Review, 4: Reletter parts c and d
In chapter	622	Review, 3: Replace x with 1
In chapter	622	Review, 8: Full stop after game
In chapter	625	Review, 24: Reletter parts c, d and e
Answers	711	14A, 8b: Change 576 to 144
Answers	711	14B, 6a: Change first probability to 1/5
Answers	711	14B, 6a: Change fourth probability to 2/15
Answers	711	14B, 6a: Change fifth probability to 1/9
Answers	711	14B, 6a: Change seventh probability to 1/15
Answers	711	14B, 6a: Delete ninth probability
Answers	711	14C, 3b: Reletter as part b
Answers	711	14C, 3c: Reletter as part c
Answers	711	14C, 3d: Reletter as part d
Answers	711	14C, 3c: Change answer to 0.00910
Answers	711	14D, 4a: Change $P(X=5)=0.0584$
Answers	711	14H, 2d: Change 1.75 to -1.75
Answers	711	14H, 3b: Change to 0.2358
Answers	711	14H, 3d: Change to 0.397
Answers	711	14H, 4b: Change to 0.5952
Answers	711	14H, 4a: Change to 0.3057
Answers	711	14H, 4c: Change to 0.2853
Answers	712	14J, 5b: Change final answer to 0.00119
Answers	712	14M, 3: Change 49.9 to 49.1
Answers	712	Review, 10 : Change to 0.0244
Answers	712	Review, 12: Change to 0.935
Answers	712	Review, 12: Change final answer to 0.935
Answers	712	Review, 13a: Change to 8.69
Answers	713	Review, 24e: Change 79.7573 to 79.8
Answers	713	Review, 25aii: Delete ellipses

Answers	713	Review, 25: Change 0.13326 to 0.133
Answers	713	Review, 25aii: Change 0.0986 to 0.0984
Answers	713	Review, 25b: Change 0.00237 to 0.00235
Answers	713	Review, 25c: Delete elipsis
Answers	713	Review, 25ci: Change 6.66 to 6.65
Answers	713	Review, 25cii: Change 0.814 to 0.812

### Practice exam papers

Section	Page	Exercise/question and correction
Paper 1	643	Paper 1, 8b: Delete 'and wins'