

ERRATA FOR INITIAL PRINT RUN

QUESTIONS

pages 442, 451, 452, 453, 811

replace the word 'ogive' with 'cumulative frequency graph'

page 85 **Review set 3B**

- 3 b remove  $x$  at end of line:  
 find  $y$  when  $x = 0, \pm 1, \pm 2$

page 188 **Exercise 8L**

- 3 new question:  
 The driver of a car travelling downhill on a road applied the brakes. The velocity,  $v$ , of the car in m/s,  $t$  seconds after the brakes were applied is given by  $v(t) = -\frac{1}{2}t^2 + \frac{1}{2}t + 15$ .
- unchanged from original
  - After how many seconds did the car reach its maximum velocity? Explain why this may have happened.
  - What was the maximum velocity reached?
  - How long does it take for the car to stop?

page 682 **Example 22**

Last three lines should read:  
 $C(100) = 2.15(100) - 0.01(100)^2 + 0.00012(100)^3 + 185$   
 $= 420$   
 $\therefore$  the total cost is \$420.

ANSWERS

page 747 **Exercise 2C**

- 1, 2, 3, 4, 8 replace  $a$  with  $u_1$

page 747 **Exercise 2D**

- 2, 3, 4, 5 replace  $a$  with  $u_1$

page 748 **Exercise 2E.2**

- 9 replace  $t_n$  with  $u_n$

page 748 **Exercise 2D**

- 2, 3, 6 replace  $a$  with  $u_1$

page 749 **Exercise 3G**

- 2 b solid graph label should be  $y = 2^{-x}$   
 4 a solid graph label should be  $y = 3^{-x}$

page 749 **Exercise 3H**

- 1 c  $x$ -axis label should be  $t$  (hours)

page 750 **Exercise 3I**

- 1 b i  $33.9^\circ\text{C}$   
 c graph label should be  $T_1 = 100 \times 2^{-0.02t}$

page 752 **Exercise 5A**

- 1 b  $x$ -axis label should be  $t$   
 $y$ -axis label should be  $W$

page 753 **Exercise 5E**

- 3 a, b, c replace  $y$  with yrs

page 763 **Exercise 8L**

- 3 new answers corresponding to new question:  
 a 15 m/s  
 b  $\frac{1}{2}$  sec.; since the car was travelling downhill, it was accelerating.  $\therefore$  when the break was applied, the speed of the vehicle still increased for a short time.  
 c  $15\frac{1}{8}$  m/s  
 d 6 seconds

ERRATA FOR FIRST REPRINT

ANSWERS

page 751 **Exercise 4B**

- 6 j answer should be 140

page 763 **Exercise 8H**

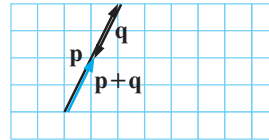
- 6 h iv  $x$ -intercepts of  $-4$  and  $-2$  should appear on the graph  
 g iv  $x$ -intercepts of  $4 \pm 2\sqrt{5}$  and a  $y$ -intercept of 1 should be added to the graph

page 763 **Exercise 8I**

- 3 answer should be: a, b, d, f

page 776 **Exercise 15B.1**

- 1 e answer should be:



page 788 **Review Set 19A**

- 8 replace  $\bar{W}$  with  $W'$

page 788 **Review Set 19B**

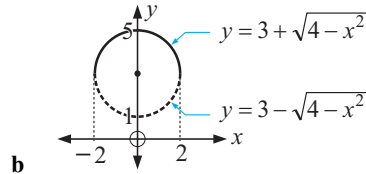
- 7 replace  $\bar{W}$  with  $W'$  and  $\bar{R}$  with  $R'$   
 10 b ii answer should be  $\frac{328}{625}$

page 788 **Exercise 20A.2**

- 1 a answer should be 96.17

page 806 **Exercise 28B**

- 5 answer should be:



- b  
 c  $\doteq 237 \text{ units}^3$

page 806 **Exercise 29A**

- 2 a ii answer should be:  $0 \leq x \leq 200 \text{ mm}$

page 806 **Exercise 29B**

- 4 a answer should be:

	6	(6, 1)	(6, 2)	(6, 3)	(6, 4)	(6, 5)	(6, 6)
	5	(5, 1)	(5, 2)	(5, 3)	(5, 4)	(5, 5)	(5, 6)
roll 1	4	(4, 1)	(4, 2)	(4, 3)	(4, 4)	(4, 5)	(4, 6)
	3	(3, 1)	(3, 2)	(3, 3)	(3, 4)	(3, 5)	(3, 6)
	2	(2, 1)	(2, 2)	(2, 3)	(2, 4)	(2, 5)	(2, 6)
	1	(1, 1)	(1, 2)	(1, 3)	(1, 4)	(1, 5)	(1, 6)
		1	2	3	4	5	6

roll 2

ERRATA FOR SECOND REPRINT

TEXT

page 40 **Opening Problem**

The opening paragraph should read:

"A circular stadium consists of sections as illustrated, with aisles in between. The diagram shows the tiers of concrete for the final section, **Section K**. Seats are to be placed along every concrete step, with each seat being 0.45 m wide. AB, the arc at the front of the first row is 14.4 m long, while CD, the arc at the back of the back row is 20.25 m long."

The angle  $32^\circ$  in the diagram should be removed.

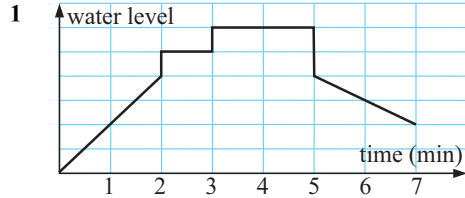
c answer should be:

	$f$	$f^{-1}$
domain	$x \in \mathbb{R}$	$x > 0$
range	$y > 0$	$y \in \mathbb{R}$

3 a question should be:

Find in terms of  $\mathbf{i}$  and  $\mathbf{j}$  and velocity vector of the liner.

ANSWERS



14 £53 519.29

9  $\pm \frac{1}{6} \times 2^{n-1}$

4 a 12 bears b 146 bears

9 a  $5 \ln 2$  b  $3 \ln 5$  c  $6 \ln 3$

10 a  $x \doteq 5.99$  b  $x \doteq 0.669$  c  $x \doteq 6.80$   
d  $x \doteq 1.10$  or  $1.39$

5 c ii 0.9

2 a  $\vec{AB} = \begin{bmatrix} 4 \\ -1 \\ -3 \end{bmatrix}$ ,  $\vec{BA} = \begin{bmatrix} -4 \\ 1 \\ 3 \end{bmatrix}$

7 b 36% c i 0.527 ii 0.030

1 a 1 m/s b 3 km/h c \$50/item d -5 bats/week

2 a 8200 L c 8200 L/hour

1 h  $8x - 4$

4 c  $2x - 10$

ERRATA FOR THIRD REPRINT

TEXT

c answer should be:

	$f$	$f^{-1}$
domain	$x \in \mathbb{R}$	$x > 0$
range	$y > 0$	$y \in \mathbb{R}$

2 b question should finish:  
... velocity reaches (18, 21) in 10 seconds

4 d question should start:  
If they start at 6:00 am, find the time...

3 a question should be:  
Find in terms of  $\mathbf{i}$  and  $\mathbf{j}$  and velocity vector of the liner.

8 b If the birth rate is 6%, the maximum carrying capacity is 24 000 and 5% is harvested, find the stable population.

c If the harvest changes to 4%, what will the stable population increase to?

The definite integrals in the definitions should be:

$$\int_a^b f(x) dx$$

The definite integral in the top definition should be:

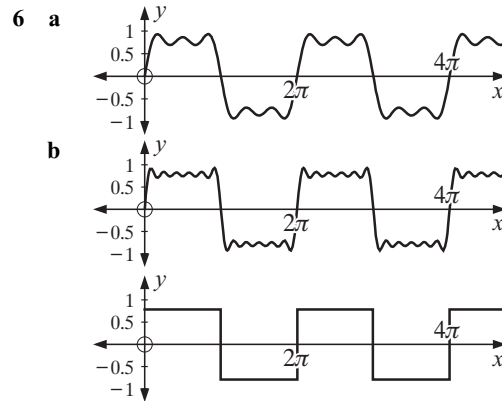
$$\int_a^b f(x) dx$$

ANSWERS

9 a  $5 \ln 2$  b  $3 \ln 5$  c  $6 \ln 3$

10 a  $x \doteq 5.99$  b  $x \doteq 0.669$  c  $x \doteq 6.80$   
d  $x \doteq 1.10$  or  $1.39$

5 c ii 0.9



4 b  $\sin \beta = \frac{-\sqrt{21}}{5}$ ,  $\sin 2\beta = \frac{-4\sqrt{21}}{25}$

6 b  $\frac{1}{\sqrt{2}}(\mathbf{i} - \mathbf{j})$

6 b ii  $\theta \doteq 114.8^\circ$

2 a  $\vec{AB} = \begin{bmatrix} 4 \\ -1 \\ -3 \end{bmatrix}$ ,  $\vec{BA} = \begin{bmatrix} -4 \\ 1 \\ 3 \end{bmatrix}$

3 b  $k = -5$

2 b  $\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -2 \\ 6 \end{bmatrix} + \frac{t}{2.5} \begin{bmatrix} 20 \\ 15 \end{bmatrix}$ ,  $t \in \mathbb{R}$

4 d 10:12 am

1 h  $8x - 4$

4 c  $2x - 10$

The answers for questions 2 and 3 should be swapped.

ERRATA FOR FIFTH REPRINT

ANSWERS

page 769 **Exercise 13E**

1 a  $T \doteq 6.5 \sin \frac{\pi}{6}(t - 4.5) + 20.5$

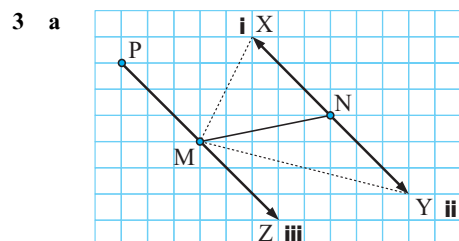
page 772 **Review set 13C**

1 a  $T \doteq 7.05 \sin \frac{\pi}{6}(t - 10.5) + 24.75$

page 773 **Exercise 14E.2**

5 b  $\begin{bmatrix} 78\,669.5 \\ 65\,589 \end{bmatrix}$  income from day 1  
income from day 2

page 777 **Exercise 15B.2**



page 780 **Exercise 17C**

2 b  $\begin{bmatrix} x \\ y \end{bmatrix} = \begin{bmatrix} -2 \\ 6 \end{bmatrix} + \frac{t}{10} \begin{bmatrix} 20 \\ 15 \end{bmatrix}$

page 798 **Exercise 23C**

2 h  $\frac{1}{x \ln x}$

### ERRATA FOR SIXTH REPRINT

#### ANSWERS

page 786 **Exercise 19E.2**

4 b  $\frac{5}{7}$