**MATHEMATICS FOR YEAR 12**
**MATHEMATICAL STUDIES 2ND EDITION**
**(as at 7 March 2011)**

**ERRATA FOR INITIAL PRINT RUN**

**TEXT**

*page 95* **REVIEW SET 3A**

**9** Equations should be: $y = \dfrac{4}{(ax+1)^2}$

*page 251* **Example 17**

**b** Last four lines should be:

The standard deviation of $\overline{X}_{20} = \frac{10}{\sqrt{20}}$

$\Pr\left(35 < \overline{X}_{20} < 45\right)$

$= \text{normalcdf}\left(35,\ 45,\ 40,\ \frac{10}{\sqrt{20}}\right)$

$= 0.975$

*page 392* **REVIEW SET 10B**

**8 b** Write an initial state row matrix $\mathbf{S}_0$.

**ANSWERS**

*page 396* **Exercise 1A**

**2 a** $x$-intercept should be at $\frac{3}{2}$.

**4 a** equation should be $3y + 2x = 4$, instead of $3x + 2y = 4$.

*page 397* **Exercise 1A**

**23 f** $x = -2\frac{2}{3}$

**24 i** $-\sqrt{\frac{b(a-1)}{a+1}}$

*page 398* **Exercise 2B**

**2 d** Cost $= 8.92A + 11.55$ A $5 \times 10$ tarpaulin costs \$458.

**4 a** There should not be a point at $t = 0$.

**4 c i** Second to last line should start: $t = 8$, $y = -11.47...$

*page 399* **Exercise 2D**

**2 a** Shaded region should finish at time $= t$.

*page 400* **Exercise 2D**

**4 d** Answer should finish:

The $t$-intercept is 4.62, the time in hours it takes to completely leave the man's bloodstream.

*page 402* **Exercise 2F.1**

**6** Last line should be:

for $\displaystyle\int_0^{\frac{1}{2}} (x^2 - x)\,dx$, then doubling the result.)

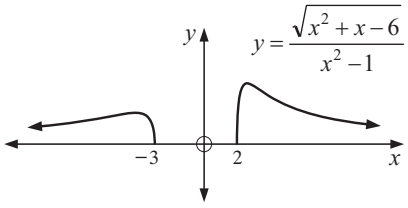
*page 402* **Review set 2A**

**2 b** $A = 640x - 9.6x^2$

*page 403* **Review set 2B**

**1 d ii** linear: $Q = 14.05$, exponential: $Q = 27.9$

**3 b**




*page 408* **Exercise 4B.1**

**3** units should be $\text{cms}^{-2}$

*page 417* **Exercise 5D.1**

**2 a ii** Show that $f''(t) = -Abe^{-bt}(bt - 2)$

*page 418* **Exercise 5D.1**

**3 a** Variables should be $t$ and $v$.

**4 a** Variables should be $t$ and $A$.

**5 f** Variables should be $t$ and $B$.

*page 419* **Exercise 5D.2**

**4 c i** 4.92 units

*page 422* **Review set 5C**

**9 f** (3.73, 117.2) The rumour spread fastest after 3.73 hours.

*page 423* **Exercise 6E.2**

**1 i** $\frac{1}{4}x^4 + x^3 + \frac{3}{2}x^2 + x + c$

*page 425* **Exercise 6I**

**5** $76.27^o$ C

*page 427* **Exercise 7C**

**7 a ii** 0.815

*page 429* **Exercise 7G.1**

**4 b** Use $\sigma = \sqrt{\sum p_i(x_i - \mu)^2}$

*page 430* **Exercise 7H.3**

**4** Second line should start:

$\text{P} \div 0.172$ which is $>$ 0.05...

*page 430* **Exercise 7I.3**

$N$ should be replaced with $\mu$ in this exercise.

*page 430* **Exercise 7I.4**

**1 a** $93\,700 \leqslant \mu \leqslant 96\,900$

*page 431* **Review set 7B**

**7 b** For $1844 \leqslant \bar{x} \leqslant 2156$

*page 431* **Review set 7C**

**5 b iii** Answer should start:

3.33 lies inside the...

**8 b i** If $T \sim N(\mu, \sigma^2)$, $\overline{T}_{10} \sim N\left(\mu,\ \left(\frac{\sigma}{\sqrt{10}}\right)^2\right)$

**iii** $28.8 \leqslant \mu \leqslant 41.2$

**iv** 250

*page 432* **Exercise 8A**

**5 f** $C_{20}^{40} \div 1.378r \times 10^{11}$

*page 434* **Exercise 8D**

**10 b** Answer should start:

The number would have to be $\leqslant 3$ or $\geqslant 14$...

*page 434* **Exercise 8E.1**

**9 c** Between 1566 and 1764

*page 435* **Review set 8B**

**4 b** 0.005 18

*page 435* **Review set 8C**

**5** Answer should start:

$H_0$: $p = \frac{1}{2}$, $H_a$: $p \neq \frac{1}{2}$. $p \div 0.398...$

*page 436* **Exercise 9B**

**7 d** There are no solutions if $a = -4$.

*page 443* **Exercise 10D**

**12 f** Answer should finish:

$\ldots \mathbf{T}^{20}\mathbf{P} = \begin{bmatrix} 1957 \\ 1050 \end{bmatrix}$

**ERRATA FOR FIRST REPRINT**

**TEXT**

*page 234* **Exercise 7C**

**10 d** $\mathrm{N}(3,\, 0.25^2)$.

**ANSWERS**

*page 401* **Exercise 2F.1**

**1 b** first row of the table should be:

| | | |
|---|---|---|
| 5 | 0.5497 | 0.7497 |

*page 402* **Exercise 2F.1**

**8 a** -6

*page 433* **Exercise 8B.1**

**14 b** 0.880