



ERRATA

MATHEMATICS FOR THE INTERNATIONAL STUDENT MATHEMATICS HL (CORE) (2nd edition)

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page 55 **OPENING PROBLEM** change second sentence

A circular stadium consists of sections as illustrated, with aisles in between. The diagram shows the 13 tiers of concrete steps 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.

page 95 **TEXT** last paragraph on the page should read:

e is a special number in mathematics. It is irrational like π , and just as π is the ratio of a circle's circumference to its diameter, e also has a physical meaning. We explore this meaning in the following investigation.

page 96 **INVESTIGATION 2**

5 You should have discovered that for very large a values,

$$\left(1 + \frac{1}{a}\right)^a \approx 2.718\,281\,828\,459\dots$$

page 122 **REVIEW SET 4A**

2 Without using a calculator, find: **a** $\log \sqrt{10}$ **b** $\log \frac{1}{\sqrt[3]{10}}$ **c** $\log(10^a \times 10^{b+1})$

page 232 **REVIEW SET 8B**

4 Expand and simplify $(\sqrt{3}+2)^5$ giving your answer in the form $a+b\sqrt{3}$, $a, b \in \mathbb{Z}$.

page 246 **REVIEW SET 9C**

6 If $u_1 = 5$ and $u_{n+1} = 2u_n - 3(-1)^n$, then $u_n = 3(2^n) + (-1)^n$, $n \in \mathbb{Z}^+$.

page 290 **EXAMPLE 2** the speech bubble should read:

As $\sin 2x$ has half the period of $\sin x$, the first maximum is at $\frac{\pi}{4}$ not $\frac{\pi}{2}$.

page 328 **SUMMARY** change second dot point:

Summary:

- $\mathbf{A} \pm \mathbf{B} = (a_{ij}) \pm (b_{ij}) = (a_{ij} \pm b_{ij})$
- We can only add or subtract matrices of the same order.
- We add or subtract corresponding elements.
- The result of addition or subtraction is another matrix of same order.

page 335 **NOTE** should read:

Note: The product \mathbf{AB} exists *only* if the number of columns of \mathbf{A} equals the number of rows of \mathbf{B} .

page 354 **TEXT following the third blue box** should read:

For example, suppose we replace the second equation by “twice the second equation minus the first equation”. In this case:

15 If $\mathbf{a} = \begin{pmatrix} -1 \\ 1 \\ 3 \end{pmatrix}$, $\mathbf{b} = \begin{pmatrix} 1 \\ -3 \\ 2 \end{pmatrix}$ and $\mathbf{c} = \begin{pmatrix} -2 \\ 2 \\ 4 \end{pmatrix}$ find: **d** $|\mathbf{a} - \mathbf{c}|$

6 7 7 4 9 5 5 5 8 9 8 9 7 7 5 8 7 6 6 7 9 7 7 7 8 9 3 7 4 8 5 10 8 6 7 6 7 5 6 8
7 9 4 4 9 6 8 5 8 7 7 4 7 8 10 6 10 7 7 7 9 7 7 8 6 8 6 8 7 4 8 6 8 7 3 8 7 6 9 7
6 9 7 6 8 3 9 5 7 6 8 7 9 7 8 4 8 7 7 7 6 6 8 6 3 8 5 8 7 6 7 4 9 6 6 6 8 4 7 8
9 7 7 4 7 5 7 4 7 6 4 6 7 7 6 7 8 7 6 6 7 8 6 7 10 5 13 4 7 11

Cuts the y -axis when $x = 0$

For example, $\bullet \sin^2(3x - \frac{\pi}{2})$ becomes $\frac{1}{2} - \frac{1}{2} \cos(6x - \pi)$

10 a 0.809 **b** 0.150

8 b i $\frac{216}{625}$

34 a $A = 1$, $B = 0$, $C = -1$ **b** $\frac{1}{2} \ln 7 - \frac{3}{2} \ln 3$

74 Either A or B must occur, or A and B are disjoint.

75 b ≈ 3.82 units

116 b ≈ 0.00172