

ERRATA

Mathematics: Core Topics SL

First edition - 2019 initial print

The following erratum was made on 16/Mar/2021

page 23 SECTION 1A Example 2, part **b** should read:

Example 2

Self Tutor

Write the equation:

a $y = -\frac{2}{3}x + 2$ in general form

b $3x - 4y = -2$ in gradient-intercept form.

a $y = -\frac{2}{3}x + 2$

$\therefore 3y = -2x + 6$ {multiplying both sides by 3}

$\therefore 2x + 3y = 6$ {adding $2x$ to both sides}

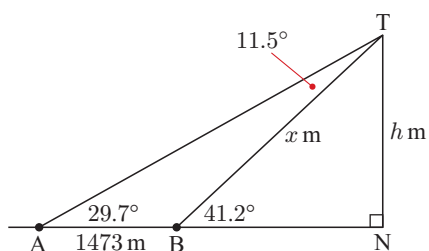
b $3x - 4y = -2$

$\therefore -4y = -3x - 2$ {subtracting $3x$ from both sides}

$\therefore y = \frac{3}{4}x + \frac{1}{2}$ {dividing both sides by -4 }

The following erratum was made on 29/Apr/2020

page 216 SECTION 8E Example 7, second line of solution should read:



Let BT be x m and NT be h m.

$$\begin{aligned}\widehat{ATB} &= 41.2^\circ - 29.7^\circ \quad \{\text{exterior angle of } \triangle ABT\} \\ &= 11.5^\circ\end{aligned}$$

We find x in $\triangle ABT$ using the sine rule:

$$\begin{aligned}\frac{x}{\sin 29.7^\circ} &= \frac{1473}{\sin 11.5^\circ} \\ \therefore x &= \frac{1473}{\sin 11.5^\circ} \times \sin 29.7^\circ \\ &\approx 3660.62\end{aligned}$$

The following errata were made on 01/Nov/2019

page 342 SECTION 12J INVESTIGATION 3, TRANSFORMING DATA Question 3 b, should read:

- 3 a Suppose we multiply each value in the original data set by 4. Calculate the mean and population standard deviation for the new data set.
- b What do you expect to happen to the mean and standard deviation if each value in a data set is multiplied by $a > 0$?

page 343 SECTION 12J INVESTIGATION 3, TRANSFORMING DATA Question 4, should read:

- 4 Suppose a data set $\{x_i\}$ has mean μ and standard deviation σ . Write down the mean and standard deviation for the data set:
- a $\{ax_i\}$, $a > 0$ b $\{x_i + k\}$ c $\{ax_i + k\}$, $a > 0$

page 356 ANSWERS EXERCISE 2E Question 4 c, should read:

- 4 a $\{x \mid x \geq 8\}$ b $\{x \mid -1 \leq x < 4\}$
- c $\{x \in \mathbb{Z} \mid -3 < x < 4\}$ or $\{x \in \mathbb{Z} \mid -2 \leq x \leq 3\}$
- d $\{x \mid x < -5\} \cup \{x \mid x > 1\}$ e $\{x \mid x < \frac{3}{2}\}$

page 360 ANSWERS REVIEW SET 2B Question 4 b, should read:

- 4 a $\{x \mid 2 < x \leq 5\}$
- b $\{x \in \mathbb{Z} \mid 4 < x < 9\}$ or $\{x \in \mathbb{Z} \mid 5 \leq x \leq 8\}$
- c $\{x \mid x \leq -3\} \cup \{x \mid x \geq 1\}$

page 384 ANSWERS EXERCISE 12I Question 7 d i, should read:

- 7 d i ≈ 25.6 cm ii ≈ 18 people

page 386 ANSWERS REVIEW SET 12B Question 13 b, should read:

- 13 a $\bar{x} \approx 49.6$ matches, $\sigma \approx 1.60$ matches
- b Yes, because the mean $\mu \approx 50$ matches.

The following errata were made on 25/Oct/2019

page 226 REVIEW SET 8B Question 15, should not be shaded green.

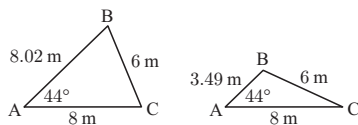
page 363 ANSWERS REVIEW SET 3A Question 13, should read:

- 12 313 sheets 13 ≈ 2.87 times

page 372 ANSWERS REVIEW SET 8B Question 15, should not be shaded green, and diagrams should be:

- 15 a The information given could give two triangles:

- b $\approx 2.23 \text{ m}^3$



The following errata were made on 23/Oct/2019

page 81 **REVIEW SET 3A** Question **13**, should read:

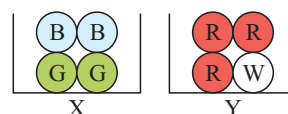
- 13** At a particular moment, Earth is 4.3×10^9 km from Neptune and 1.5×10^9 km from Saturn.
How **many times** further away is Neptune than Saturn?

page 140 **REVIEW SET 5A** Question **11 b**, should read:

- 11** Each year, a school manages to use only 90% as much paper as the previous year. In the year 2010, they used 700 000 sheets of paper.
- a** Find how much paper the school used in the years 2011 and 2012.
 - b** How much paper did the school use in total in the decade from 2008 to **2017**?

page 260 **SECTION 10F INVESTIGATION 5, INDEPENDENT EVENTS** Question **2 a**, should read:

- 2** Consider randomly selecting a ball from each of the boxes alongside.
- a** Does the outcome of the draw from either box affect the **outcome** of the other?



page 349 **REVIEW SET 12B** Question **11**, should read:

- 11** Consider the frequency table alongside:
- a** Find the values of p and m .
 - b** Hence find the mode, median, and range of the data.
 - c** Given that $\sum xf = 254$, write the mean $\bar{x}$ as a fraction.

Score (x)	Frequency (f)	Cumulative frequency
6	2	2
7	4	m
8	7	13
9	p	25
10	5	30

page 366 **ANSWERS EXERCISE 5D** Question **1 a**, should read:

- 1 a i** ≈ 1550 ants **ii** ≈ 4820 ants **b** ≈ 12.2 weeks

page 366 **ANSWERS EXERCISE 5F** Question **9**, should read:

9 $S_n = \sum_{k=1}^n (2k - 1) = n^2$

page 367 **ANSWERS REVIEW SET 5A** Question **19 a**, should read:

- 19 a** €6622.88 **b** €13 313.28

page 369 **ANSWERS REVIEW SET 6B** Question **3 c**, should read:

- 3 a** $\approx 84.7 \text{ cm}^2$ **b** $\approx 7110 \text{ mm}^2$ **c** $\approx 8.99 \text{ m}^2$

page 377 **ANSWERS REVIEW SET 10B** Question **6 a**, should read:

