

# ERRATA

## MATHEMATICS FOR AUSTRALIA 7

(2nd edition)

Second edition - 2023 first reprint

The following errata were made on 04/Oct/2023

page 30 SECTION 2G First 8 lines should read:

## G PRIME AND COMPOSITE NUMBERS

A **prime** number is a **counting** number which has exactly two different factors, 1 and itself.  
A **composite** number is a **counting** number which has more than two different factors.

For example:

- 7 is a prime number because its only factors are 1 and 7.
- 12 is a composite number because it has six factors: 1, 2, 3, 4, 6, and 12.

The number 1 is special since its only factor is itself.

The number 1 is neither prime nor composite.

Every **counting** number greater than 1 is either prime or composite.

page 377 SECTION 19C Example 4 Third line of solution should read:

- a** In total there are  $15 + 18 + 16 + 2 + 9 = 60$  students.

$$\frac{1}{60} \text{ of } 360^\circ = \frac{360^\circ}{60} = 6^\circ$$

so each **student** corresponds to an angle of  $6^\circ$  at the centre of the circle.

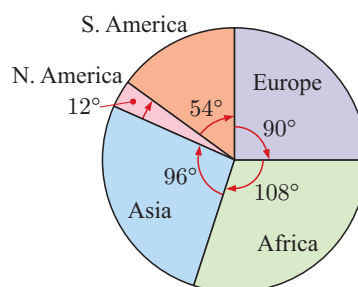
The Europe sector has angle  $15 \times 6^\circ = 90^\circ$ .

The Africa sector has angle  $18 \times 6^\circ = 108^\circ$ .

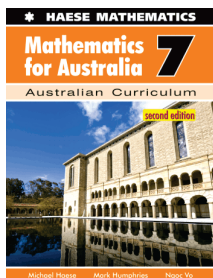
The Asia sector has angle  $16 \times 6^\circ = 96^\circ$ .

The North America sector has angle  $2 \times 6^\circ = 12^\circ$ .

The South America sector has angle  $9 \times 6^\circ = 54^\circ$ .



- b** The fraction of students who chose a country in Europe  $= \frac{15}{60} = \frac{1}{4}$ .



## ERRATA

### MATHEMATICS FOR AUSTRALIA 7

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Second edition - 2021 initial print

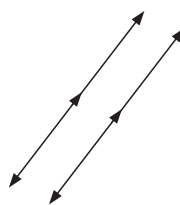
The following erratum was made on 05/Dec/2022

page 48 SECTION 3C should show example of perpendicular lines:

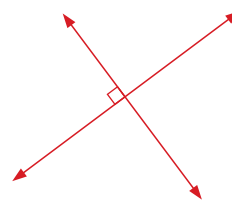
## C PARALLEL AND PERPENDICULAR LINES

We have already seen how lines drawn in a plane are either parallel or intersecting.

- Two lines are **parallel** if they never meet.  
We use the symbol  $\parallel$  to mean “is parallel to”.
- Two lines are **perpendicular** if they intersect at right angles.  
We use the symbol  $\perp$  to mean “is perpendicular to”.



parallel lines



perpendicular lines

## D DIVISION STRATEGIES

In any division we can identify a **dividend**, a **divisor**, and a **quotient**.

$$\text{dividend} \div \text{divisor} = \text{quotient}$$

Our strategies for division are based on recognising factors and multiples.

| Strategy                                                                                                                                      | Examples                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1. Divide both the <b>dividend</b> and <b>divisor</b> by a common factor.                                                                     | $4800 \div 80$<br>$= 480 \div 8$<br>$= 60$                        |
| 2. Look for an easily recognisable multiple of the <b>divisor</b> which is close to the <b>dividend</b> , then add or subtract to compensate. | $98 \div 14$<br>$= 49 \div 7$<br>$= 7$                            |
|                                                                                                                                               | $153 \div 3$<br>$= 150 \div 3 + 3 \div 3$<br>$= 50 + 1$<br>$= 51$ |
|                                                                                                                                               | $147 \div 3$<br>$= 150 \div 3 - 3 \div 3$<br>$= 50 - 1$<br>$= 49$ |

- Find by first dividing both the **dividend** and **divisor** by a common factor which is a power of 10:
- Find by first dividing both the **dividend** and **divisor** by a common factor:
- Find by using a multiple of the **divisor** which is close to the **dividend**, then adding or subtracting to compensate:

### Activity 1

### Long division

If the division strategies we have seen do not help perform a division, we can use **long division**.

To find  $456 \div 19$  by long division, we follow these steps:

- Starting from the left, consider as many digits of the **dividend** as necessary to form a number greater than the **divisor**.
- Find the largest multiple of the **divisor** which is less than or equal to this number.

$$19 \overline{) 456}$$

45 is greater than 19.

$$19 \overline{) 456} \begin{array}{r} 2 \\ 38 \\ \hline \end{array}$$

The largest multiple of 19 less than or equal to 45 is  $19 \times 2 = 38$ .

We write the 2 above the line, and 38 below the 45.

page 76 **ACTIVITY 1** should read:

- Bring the next digit of the **dividend** down. Repeat the process until all digits of the **dividend** have been considered.

$$\begin{array}{r} 24 \\ 19 \overline{) 456} \\ \underline{-38} \phantom{0} \\ 76 \\ \underline{-76} \\ 0 \end{array}$$

The largest multiple of 19 less than or equal to 76 is  $19 \times 4 = 76$ .

page 92 **SECTION 5C Example 4** Diagram in solution should have correct numbering:

#### Example 4

 **Self Tutor**

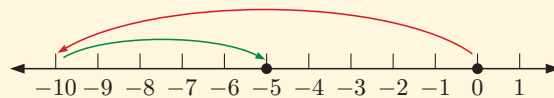
Find the combined effect of spending \$10 and then earning \$5.

Suppose we start at 0.

Spending \$10 means we subtract 10.

Earning \$5 means we add 5.

So, the result is  $0 - 10 + 5 = -5$ .

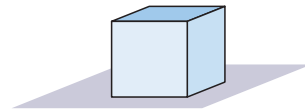


The combined effect is spending \$5.

page 279 **ACTIVITY 4** Diagram at start should be inserted:

The Humble House Factory manufactures cubic living quarters for countries with hot climates. Heat enters every roof and exposed wall at the same rate.

For a house made of **one cube**, heat enters in equal amounts from 5 sides, but not the floor.

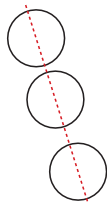


page 401 **INVESTIGATION Example 1** should only have 1 line of symmetry:

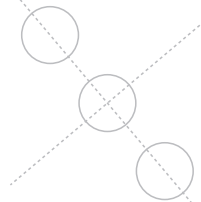
• 0



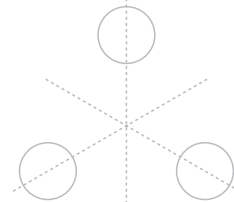
• 1



• 2



• 3



page 418 **ANSWERS EXERCISE 2A** Question **8 a** should read:

**8 a**

$$\begin{aligned} 1 \times 3 + 1 &= 4 = 2^2 \\ 2 \times 4 + 1 &= 9 = 3^2 \\ 3 \times 5 + 1 &= 16 = 4^2 \\ 4 \times 6 + 1 &= 25 = 5^2 \\ 5 \times 7 + 1 &= 36 = 6^2 \\ 6 \times 8 + 1 &= 49 = 7^2 \\ 7 \times 9 + 1 &= 64 = 8^2 \end{aligned}$$

**b**

$$\begin{aligned} \text{i} & 400 \\ \text{ii} & 899 \end{aligned}$$

page 418 **ANSWERS EXERCISE 2F** Questions **6, 7, and 8** move to page 419:

page 423 **ANSWERS EXERCISE 4E** Question **9** should read:

**8** 15 eggs      **9** 54 000 avocados

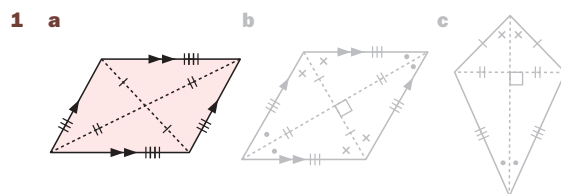
page 428 **ANSWERS EXERCISE 7G** Question **7 b iii** should be labelled **7 c**:

**7 a** 50.97 s    **b i** 0.49 s    **ii** 1.74 s    **c** 48.25 s

page 432 **ANSWERS EXERCISE 9D** Question **3 n** should read:

**3 a** 40%    **b** 45%    **c** 40%    **d** 25%  
**e** 50%    **f** 20%    **g** 20%    **h**  $16\frac{2}{3}\%$   
**i**  $66\frac{2}{3}\%$     **j** 22%    **k** 42%    **l** 55%  
**m** 87.5%    **n** 0.0125%    **o**  $\frac{1}{60}\%$  or  $\approx 0.0167\%$

page 435 **ANSWERS EXERCISE 11F** Question **1 a** diagram should not show markings at any angles:



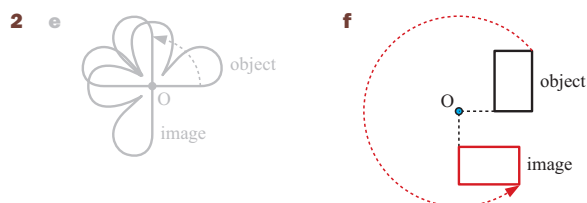
page 436 **ANSWERS EXERCISE 11F** Question **3 d** should read:

**3 a** true    **b** false    **c** true    **d** false    **e** false    **f** true

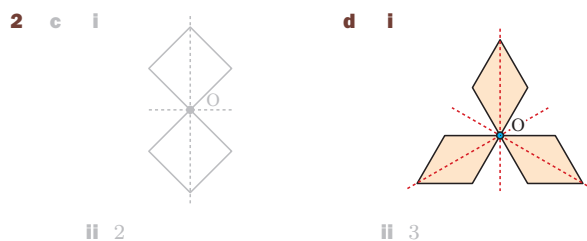
page 447 **ANSWERS SHORT RESPONSE TEST 17** Question **5 c** should read:

**5 a** 10 minutes    **b** 1200 m    **c** 9 minutes

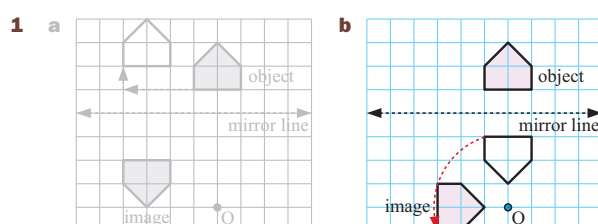
page 455 **ANSWERS EXERCISE 20D** Question **2 f** diagram should show 270° counter clockwise rotation:



page 456 **ANSWERS EXERCISE 20E** Question **2 d i** diagram should label centre of rotational symmetry:



page 456 **ANSWERS EXERCISE 20G** Question **1 b** diagram should show 90° of rotation to the correct corner:



page 458 **ANSWERS SHORT RESPONSE TEST 20** Question **7** should read:

**6** (5, 3)    **7**  $\frac{1}{2}$     **8** 4th quadrant