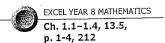
CHAPTER 1

Basic arithmetic and the calculator

Addition and subtraction



Use your calculator to find the following. QUESTION 1

Use your calculator to find the answer. QUESTION 2

QUESTION **3** Use your calculator to work out the following.

$$a \frac{1}{3} + \frac{1}{4} =$$

a
$$\frac{1}{3} + \frac{1}{4} =$$
 b $\frac{3}{7} + \frac{9}{14} =$ **c** $\frac{2}{3} + \frac{9}{8} =$

$$c = \frac{2}{3} + \frac{9}{8} =$$

d
$$2\frac{3}{4} + 1\frac{8}{9} =$$

d
$$2\frac{3}{4} + 1\frac{8}{9} =$$
 e $5\frac{1}{6} + 2\frac{2}{3} =$

$$\mathbf{f} = 9\frac{2}{5} + 3\frac{3}{5} = \underline{}$$

QUESTION 4 Use your calculator to find the following.

Use your calculator to find the answer. QUESTION 5

Use your calculator to work out the following.

a
$$\frac{7}{9} - \frac{2}{9} =$$
 b $\frac{6}{17} - \frac{2}{17} =$

b
$$\frac{6}{17} - \frac{2}{17} =$$

c
$$\frac{5}{13} - \frac{1}{13} =$$

d
$$\frac{9}{10} - \frac{4}{5} =$$
 e $\frac{3}{7} - \frac{2}{3} =$...

$$e \frac{3}{7} - \frac{2}{3} =$$

$$f = \frac{8}{9} - \frac{2}{3} =$$

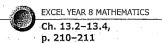
g
$$6\frac{7}{9} - 4\frac{3}{4} =$$
 ______ i $6\frac{3}{7} - 4\frac{2}{3} =$ ______ i $6\frac{3}{7} - 4\frac{2}{3} =$ ______

h
$$18\frac{5}{8} - 3\frac{2}{5} =$$

$$i \quad 6\frac{3}{7} - 4\frac{2}{3} =$$

Basic arithmetic and the calculator

Approximation and rounding off



QUESTION **1** Round off the following numbers to the nearest hundred.

QUESTION **2** Round off the following numbers to the nearest thousand.

QUESTION **3** Write the following decimals correct to two decimal places.

QUESTION 4 Write the following decimals correct to one decimal place.

QUESTION **5** Express the following correct to 2 significant figures.

QUESTION **6** Express the following correct to 3 significant figures.

Basic arithmetic and the calculator

Squares, cubes and powers

QUESTION **1** Use the x^2 key to evaluate the following.

a
$$(3)^2 =$$

c
$$(9)^2 =$$

d
$$(5)^2 =$$

$$e (11)^2 =$$

$$f (13)^2 =$$

$$g (41)^2 =$$

$$\mathbf{j}$$
 (58)² = _____

$$k (1.7)^2 =$$

QUESTION **2** Use the x^y key to evaluate the following.

a
$$2^3 =$$

b
$$5^3 =$$

d
$$21^3 =$$

$$68^3 =$$

$$f \cdot 72^3 =$$

$$q 4^5 =$$

$$i 2^8 =$$

$$k 3^6 =$$

QUESTION **3** Answer the following.

a
$$(2.1)^3 =$$

b
$$(8.7)^2 =$$

$$c (9.5)^3 =$$

d
$$(10.4)^4 =$$

e
$$(6.9)^3 =$$

$$g (225)^2 =$$

$$h (63.5)^2 =$$

$$i (2.1)^6 =$$

$$i$$
 (71.5)² = _____

$$k (18.5)^3 =$$

QUESTION 4 Calculate the following correct to 1 decimal place.

a
$$(2.51)^2 =$$

$$c (8.2)^4 =$$

d
$$(8.64)^2 =$$

e
$$(8.1)^2 =$$

$$f (16.1)^3 =$$

$$g (9.1)^3 =$$

$$i (5.2)^4 =$$

$$\mathbf{j}$$
 (3.6)³ = _____

$$k (7.6)^4 =$$

$$(2.3)^5 =$$

QUESTION **5** Evaluate the following, leaving your answers in fraction form.

a
$$\left(2\frac{1}{2}\right)^2 =$$

b
$$\left(\frac{1}{3}\right)^3 =$$

$$c \left(1\frac{3}{4}\right)^2 =$$

d
$$\left(4\frac{1}{3}\right)^2 =$$

d
$$\left(4\frac{1}{3}\right)^2 =$$
 e $\left(5\frac{3}{4}\right)^3 =$

$$f \left(7\frac{1}{2}\right)^4 =$$

$$g \left(2\frac{1}{3}\right)^3 =$$

$$h \left(3\frac{3}{5}\right)^2 =$$

$$\left(2\frac{1}{3}\right)^3 =$$
_______ **i** $\left(5\frac{5}{6}\right)^2 =$ _______

$$j \left(2\frac{1}{4}\right)^3 =$$

$$k \left(3\frac{3}{4}\right)^3 =$$
 $\left(4\frac{1}{4}\right)^2 =$

$$\left(4\frac{1}{4}\right)^2 = \underline{\hspace{1cm}}$$

Basic arithmetic and the calculator

EXCEL YEAR 8 MATHEMATIC Ch. 13.5, 13.6, p. 212, 215

Problem solving and the calculator

- Find the cost of 55 litres of petrol if 1 litre costs 85.9 cents.
- **2** Find $\frac{2}{9}$ of 15.8 metres.
- **3** Find the area of a square of side 8.25 m.
- 4 Calculate the volume of a cube of side 3.5 cm.
- **5** 'How much would 48 books cost if 3 books cost \$25.35?
- **6** Find the cost of 25 calculators at \$48.95 each.
- **7** Divide \$1019.20 equally among 28 people.
- **8** Find the average of 3.5, 8.75, 6.95, 15.6 and 11.25
- **9** Find the volume of a rectangular prism with sides 9 cm, 15.6 cm and 18.9 cm.
- **10** Find the length of each side of a cube that has a volume of 24 389 cm³.
- **11** Find the sum of 25.6, 18.35, 46.286 and then subtract 19.256
- **12** Find the square root of $12\frac{1}{4}$
- **13** Find the cube root of 27.8 correct to 2 decimal places.
- 14 Find the cost of 8.956 kg of cheese at \$6.90 a kilogram.
- **15** How many \$8.95 books can be bought for \$187.995?

11 $25 \times 10^3 =$

- (A) 25 000
 - **B** 20 000
- © 24 000
- **①** 50 000

1

Marks

12 $\frac{1}{7} \times \frac{1}{7} =$

- (A) $\frac{1}{49}$
- (B) $1 \frac{1}{7}$
- \mathbb{C} $\frac{2}{7}$

1.

13 The number three hundred thirty thousand and three may be written as

- (A) 300 303
- **B** 303 003
- © 330 003
- ① 3 300 003

1

14 $3 \times 3 \times 3 - 3 \times 3$ simplifies to

- (A) 9
- **B** 15
- **(C)** 18
- **①** 27

1

15 147.65831 correct to two decimal places is

- (A) 140.00
- **B**) 147.65
- © 147.66
- ① 150.65

1

Total marks achieved for PART A



TOPIC TEST PART C

- **Instructions** This part consists of 4 questions
 - Each question is worth 5 marks
 - Show all necessary working

Time allowed: 20 minutes

Total marks = 20

- Write the number 285.76538 correct to
 - a 3 decimal places _____
 - c 2 decimal places _____

 - e 1 decimal place _____
- **b** 3 significant figures ______.
- d 2 significant figures _____
- 5

Marks

- **2** Evaluate correct to 2 decimal places.
 - a 29.5×25.3
- 81.7 12.83×0.89
- d $(9.6)^2 \times \sqrt{31.5}$

1.63 + 3.98

5

- **3** Evaluate correct to 3 decimal places.
 - a $\sqrt{(5.6)^2 + (8.2)^2}$
- $\mathbf{c} \quad (3.6)^4 + (2.5)^2$
- d $\sqrt{19 \times 32}$
- **e** $0.83 \times (3.15)^2$

5

- **4** Evaluate correct to 3 significant figures.
 - **a** $(8.5)^2 + 2.5 \times 1.2$ **b** $(3.8)^2 (4.3)^2$

- c $7.8 \div \sqrt{21.6}$ d $48.5 \div (1.3^2 + 21.7)$
- e $\sqrt{(6.3)^3}$

5

Total marks achieved for PART C