

# 1 Division of decimals (1)

Date: \_\_\_\_\_

Score: \_\_\_\_\_

## Basic Questions

1. (a)

$$\begin{array}{r} 2 \overline{) 4.6} \\ \hline \end{array}$$

(b)

$$\begin{array}{r} 4 \overline{) 2.6} \\ \hline \end{array}$$

(c)

$$\begin{array}{r} 6 \overline{) 6.42} \\ \hline \end{array}$$

2. (a)  $16.8 \div 6 =$  \_\_\_\_\_

(b)  $67.2 \div 21 =$  \_\_\_\_\_

(c)  $0.96 \div 8 =$  \_\_\_\_\_

(d)  $1.7 \div 25 =$  \_\_\_\_\_

### Tips



- Line up the decimal points in the quotient and the dividend.
- Put '0's in the quotient whenever necessary.

3. (a)

$$\begin{array}{r} 6 \overline{) 87} \\ \hline \end{array}$$

(b)

$$\begin{array}{r} 18 \overline{) 747} \\ \hline \end{array}$$

4. (a)  $426 \div 12 =$  \_\_\_\_\_

(b)  $152 \div 5 =$  \_\_\_\_\_

5. Which of the following is closest to the result of  $174.9 \div 16$ ?

- A.  $170 \div 16$
- B.  $174 \div 16$
- C.  $175 \div 16$
- D.  $180 \div 16$



★ Questions

6. Which of the following has the smallest result?
- A.  $90 \div 12$                        B.  $9 \div 12$
- C.  $0.9 \div 12$                        D.  $0.09 \div 12$

7. If  $\star \div 10 = 0.8$ , what is the result of  $\star \div 100$ ?
- A. 0.08                       B. 0.8
- C. 8                       D. 80

**Tips** 

Apply the properties of ' $\div 10$ ' and ' $\div 100$ '.

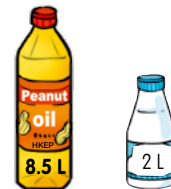
8. Each kilogram of walnuts costs \$36. Mum spends \$97.2 on walnuts. How many kilograms of walnuts does she buy?

Answer: \_\_\_\_\_ kg

9. A melon weighs 4 kg. Mum cuts the melon into 16 pieces of the same size. Each piece of melon weighs \_\_\_\_\_ kg.

10. Dad spends 75 dollars on half a dozen chicken pies. How much does each chicken pie cost? (Show your working)

11. A shop assistant pours the oil from the big oil bottle into small bottles, as shown on the right. He can fill up \_\_\_\_\_ small bottles at most. He will have \_\_\_\_\_ L of oil left.



12. The length of a rectangular workshop is 40 m. Its area is  $864 \text{ m}^2$ . What is its width? (Show your working)



## Learning Objectives

- ① Applications of percentages
- ② Capacity and volume
- ③ Circumference
- ④ Area of circles



### Self-Assessment

- Correct
- Incorrect



1. 39% of 600 is \_\_\_\_\_.
2. 45 is \_\_\_\_\_ % of 250.
3. There are 75 cheesecakes and 12 green tea cakes in a cake shop.
  - (a) What percentage of the number of green tea cakes is the number of cheesecakes?  
Answer: \_\_\_\_\_
  - (b) What percentage of the number of cheesecakes is the number of green tea cakes?  
Answer: \_\_\_\_\_
4. When 140 is increased by 35%, the result is \_\_\_\_\_.
5. A rectangular flower bed is 9 m long and 6 m wide. When its length is increased by 30%, what is its new area?
  - A.  $11.7 \text{ m}^2$
  - B.  $16.2 \text{ m}^2$
  - C.  $54 \text{ m}^2$
  - D.  $70.2 \text{ m}^2$
6. There are 160 seats in an aeroplane. 27.5% of them are business seats. The remaining are economy seats. There are \_\_\_\_\_ more economy seats than business seats.



Self-Assessment

- Correct
- Incorrect


 4

 4

 4

 4

Check

16. Complete the table below. (Take  $\pi = 3.14$ )

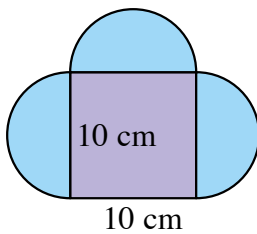
Circle	Radius	Diameter	Area
X	7 cm		
Z		60 m	

17. Use the pair of compasses on the right to draw a circle. What is the area of the circle? (Take  $\pi = 3.14$ )

- A.  $12.56 \text{ cm}^2$
- B.  $25.12 \text{ cm}^2$
- C.  $50.24 \text{ cm}^2$
- D.  $200.96 \text{ cm}^2$



18. Find the area of the coloured region below. (Take  $\pi = 3.14$ )



Area: \_\_\_\_\_  $\text{cm}^2$

**Self-Assessment Table**

	Fair	Good	Great
① Applications of percentages	(0-2)	(3-5)	(6-7)
② Capacity and volume	(0-1)	(2-3)	(4)
③ Circumference	(0-2)	(3-4)	(5-6)
④ Area of circles	(0-1)	(2-3)	(4)

(Based on the number of questions that answered correctly, colour the appropriate face.)



# Challenging Common Mistakes

Date: \_\_\_\_\_

## Challenge 1

1. Change 3.6% into a fraction and reduce it to the simplest form.

Answer:

Similar question: P.18 Q2

### What's wrong?

Weak in changing a percentage into a fraction.

### How to do it?

First change the percentage into a decimal. Then change the decimal into a fraction and reduce it to the simplest form.



## Challenge 2

2.  $9.2 - 17.68 \div 8 =$  \_\_\_\_\_

Similar question: P.10 Q1

### What's wrong?

Some pupils forget the arithmetic rule: 'Multiply or divide first, and then add or subtract'.

### How to do it?

Pay attention to the positions of all multiplication signs and division signs.

3. The capacity of a bottle is 2 L. The capacity of a cup is 0.8 L.  
The capacity of a bottle is \_\_\_\_\_ times that of a cup. Similar question: P.6 Q5

### What's wrong?

Some pupils fail to solve the problem involving division of decimals.

### How to do it?

Understand the scenario of the problem carefully.



## Division of decimals

division	除法
quotient	商
remainder	餘數
P is divided by Q	P 除以 Q
is approximately equal to	大約等於
round off	四捨五入
round off to the nearest tenth	取至十分位
round off to the nearest hundredth	取至百分位
mixed operations	四則混合運算

## Interconversion between decimals and fractions

change / convert	化為
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## Average

average	平均數
datum (plural: data)	數據

## Percentages

percentage	百分數
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## Applications of percentages

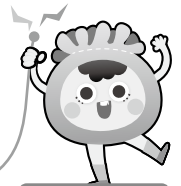
part	部分
whole	整體

## Capacity and volume

capacity	容量
volume	體積
millilitre (mL)	毫升 (mL)
litre (L)	升 (L)
cubic centimetre (cm <sup>3</sup> )	立方厘米 (cm <sup>3</sup> )
cubic metre (m <sup>3</sup> )	立方米 (m <sup>3</sup> )
water displacement method	排水法
irregular solid	不規則立體
tank	水缸
measuring cup	量杯
overflow vessel	排水桶

## Learning Objectives

- ① Find the average of a group of data
- ② Find a missing datum of a group of data based on its average



### Self-Assessment

- Correct  
 Incorrect



1. Find the average of the following group of numbers.

4.9, 3.14,  $\frac{3}{2}$ , 0, 55.71

Answer: \_\_\_\_\_

①

2. Given the average of the group of numbers, fill in the blank with a suitable number.

Average = 10                      13, 9, \_\_\_\_\_, 11, 15

②

3. The weights of Alvin's family are 84 kg, 63 kg, 52 kg and 101 kg. What is the average weight of Alvin's family?

- A. 69 kg                       B. 72 kg  
 C. 75 kg                       D. 78 kg

①

4. In the past 6 days, Fiona saved \$9.5 each day in the first 4 days. She saved a total of \$25 in the last 2 days. She saved \$ \_\_\_\_\_ each day on average.

①

5. The following table records the monthly rainfall of a city in the second half of the year.

Month	Jul	Aug	Sep	Oct	Nov	Dec
Rainfall (mm)	190	150	80	50	50	20

In the second half of the year, how many months have a higher rainfall than the average?

- A. 2                                       B. 3  
 C. 4                                       D. 5

①