Contents

Additional Resources:

11 Fractions (1)

1 1-minute Revision

Concept Review

- Use a fraction to express **a part of the whole**.
  e.g.:

  The coloured part is $\frac{4}{5}$ of the whole.
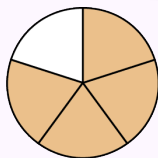
  $\frac{4}{5}$

  Numerator: The part that the coloured sections represent.

  Denominator: The number of **equal sections** the whole is divided into.

- When the numerator is the same as the denominator, the value of the fraction equals 1.

  e.g.: $\frac{2}{2} = \frac{3}{3} = \frac{7}{7} = 1$
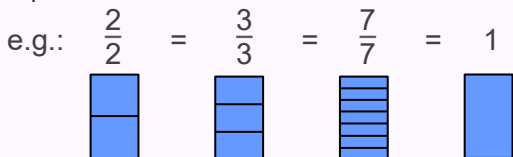
- When the fractions have the same value, they are called **equivalent fractions**.

  e.g.: $\frac{1}{2} = \frac{2}{4} = \frac{3}{6}$
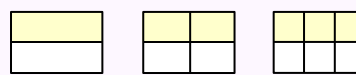
  They are equivalent fractions.

2 Basic Practice

In each of the following, what fraction of the whole figure is coloured? Write the fraction and fill in the blank.

1.
Read as: _____

2.
Read as: _____
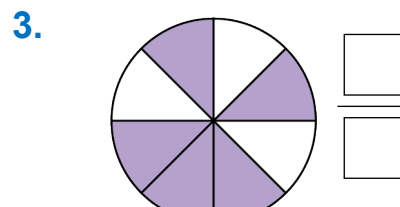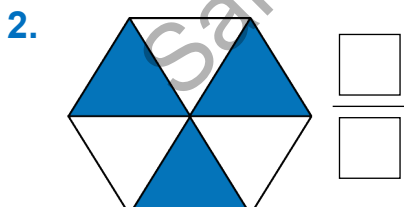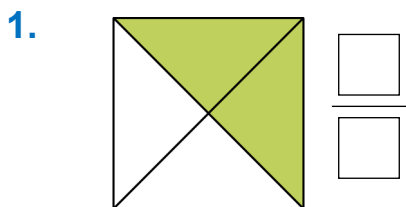
3.
Read as: _____

In each of the following, colour the part of the figure according to the given fraction.

4. $\frac{1}{5}$

5. $\frac{8}{9}$

6. $\frac{4}{4}$
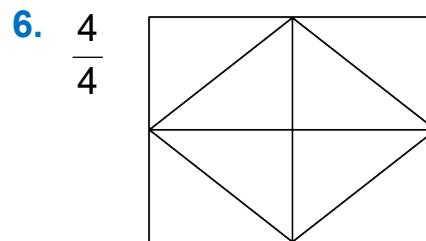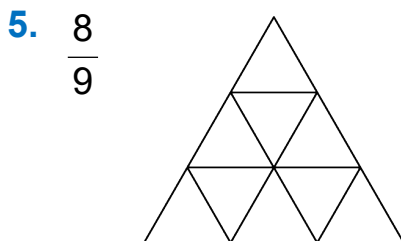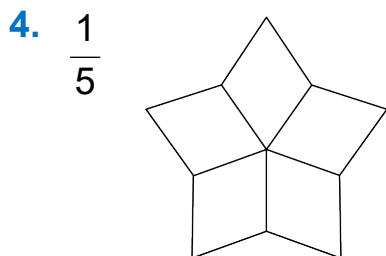
Fill in the boxes with the correct numbers.

7. $1 = \dfrac{\boxed{}}{10} = \dfrac{14}{\boxed{}}$

8. $\dfrac{21}{\boxed{}} = \dfrac{12}{12} = \dfrac{\boxed{}}{19}$

9. $\dfrac{8}{12} = \dfrac{\boxed{}}{3}$

10. $\dfrac{3}{5} = \dfrac{\boxed{}}{15}$

Date		Time used	minutes	Marks	

3 Advanced Practice

In each of the following, what fraction of the whole figure is coloured?

Write down the correct letter in the ☐.

A. $\dfrac{1}{2}$　　B. $\dfrac{1}{3}$　　C. $\dfrac{1}{4}$　　D. $\dfrac{3}{4}$　　E. $\dfrac{4}{6}$　　F. $\dfrac{6}{6}$

11. ☐　　**12.** ☐　　**13.** ☐

14. ☐　　**15.** ☐　　**16.** ☐

Useful Tips
How many trapeziums of the same size is this figure made up of?
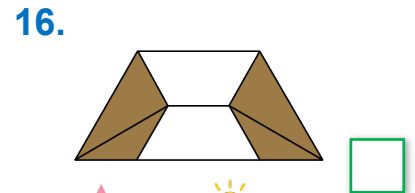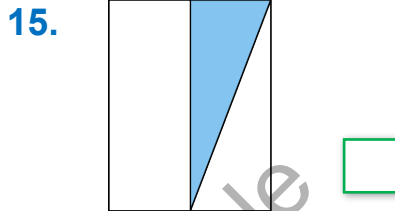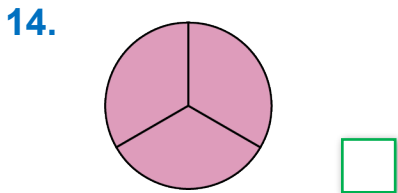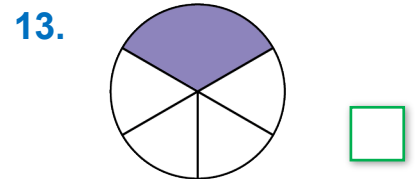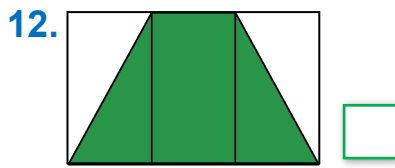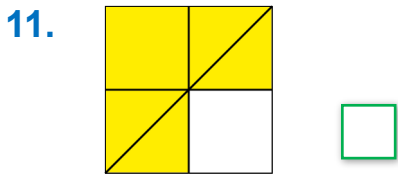
Blacken the ◯ next to the correct answer.

17. Which of the following is correct?

◯ A. $\dfrac{1}{9} = 1$　　　◯ B. $\dfrac{9}{9} = 1$　　　◯ C. $\dfrac{9}{9} = 9$　　　◯ D. $\dfrac{1}{9} = 9$

18. What fraction of the whole figure on the right is coloured?

◯ A. $\dfrac{2}{4}$　　　◯ B. $\dfrac{2}{6}$

◯ C. $\dfrac{3}{7}$　　　◯ D. $\dfrac{3}{8}$

19. Which of the following figures have $\dfrac{1}{3}$ of the whole figure coloured?

I. 　　II. 　　III.

IV. 　　V. 　　VI.
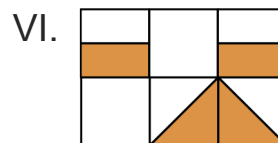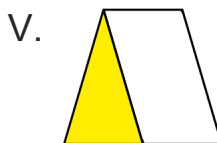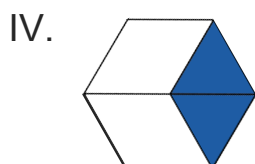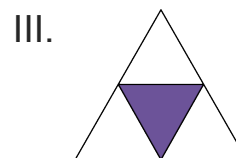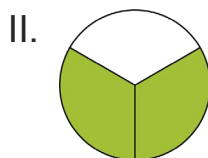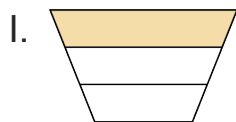
◯ A. I and II only　　　　　　◯ B. I, III and IV only
◯ C. IV and V only　　　　　　◯ D. IV, V and VI only

29
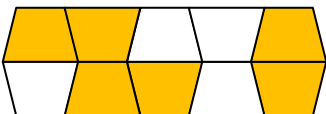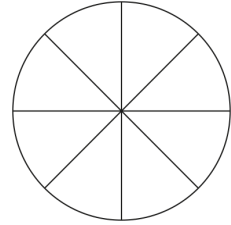
Assessment 2

Time allowed: **30**min

Name: _____   Class: _____ (   )   Date: _____
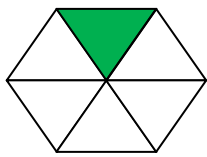
Assessment Points		Questions	Marks
Fractions	Recognise fractions, compare fractions, addition and subtraction of fractions with the same denominator	1–8	/ 32
Capacity	Recognise capacity, litres and millilitres	9–15	/ 32
Bar charts	Read and construct bar charts	16–22	/ 36
		Total marks:	**/ 100**
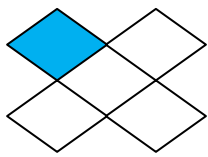
Instructions
- **Multiple choice questions:** Blacken the ◯ next to the correct answer.
- **Questions in which you are asked to 'show your working':**
  Write your mathematical expressions, answers, and statements / conclusions.
- **Other types of questions:** Answer as required in the spaces provided.

Marks
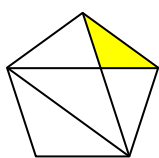
1. The coloured part is ☐/☐ of the whole figure. **2M**
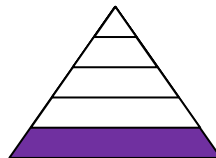
2. Kenny divided a pizza into 8 equal pieces. Then he ate 3 pieces. He ate ☐/☐ of the pizza. **2M**

3. Which of the following figures has the coloured part **larger than** $\frac{1}{5}$ of the whole figure?

◯ A.

◯ B.

◯ C.

◯ D.

4M
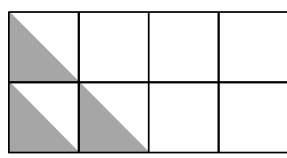
4. The figure on the right is made up of squares of the same size. Some of them are shaded.

Use a pencil to shade the squares so that $\frac{9}{16}$ of the whole figure is shaded.

6M

Cross-topic Exercise
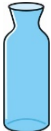
Complete the following.

1. The rates of a courier company are shown below.

Weight	Fee
First 1 kg	$32
Every 100 g thereafter	$6
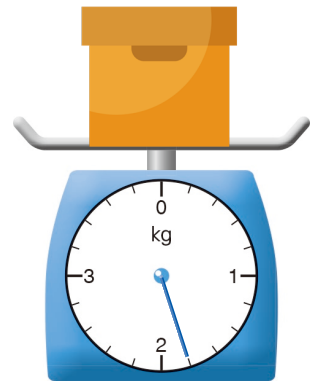
a. The weight of the parcel on the right is _____ g.

b. If Mr Chan sends out the parcel, how much should he pay? (Show your working)

2. of water can fill up .

of water can fill up .

The capacity of is $\frac{\boxed{}}{\boxed{}}$ of .

3. a. Among the triangles on the right, there are _____ equilateral triangles and _____ right-angled triangles.

   b. $\frac{\boxed{}}{\boxed{}}$ of all the triangles are equilateral triangles.

   c. $\frac{\boxed{}}{\boxed{}}$ of all the isosceles triangles are equilateral triangles.
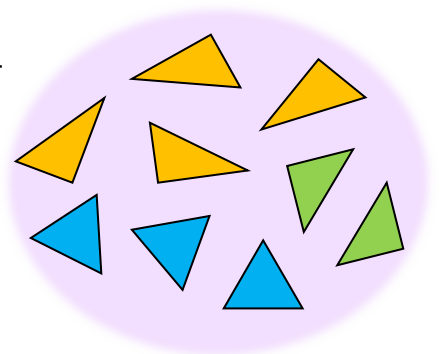
4. Katy poured $\frac{1}{4}$ of the water in the measuring cup on the right into glass A.
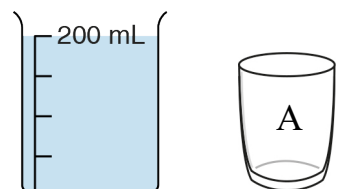
   a. Glass A contains _____ mL of water now.

   b. _____ mL of water are left in the measuring cup.

Revision Notes

Unit 1: Mixed operations of addition and subtraction (Exercises 1-3)

1. Addition and subtraction

- **Addition**

$$\begin{array}{r} 1\ 9\ 5\ 2 \\ +\ 2^{1}1^{1}5\ 3 \\ \hline 4\ 1\ 0\ 5 \end{array}$$

| 1. Put the digits in the correct places. |
| 2. Add the digits in the units place, tens place, hundreds place and thousands place in order. |
| Pay attention to carrying. |

- **Subtraction**

$$\begin{array}{r} {}^{2}\ {}^{11} \\ \cancel{3}\ \cancel{1}\ 4\ 7 \\ -\ 2\ 8\ 4\ 2 \\ \hline 3\ 0\ 5 \end{array}$$

| 1. Put the digits in the correct places. |
| 2. Subtract the digits in the units place, tens place, hundreds place and thousands place in order. |
| Pay attention to borrowing. |

2. Mixed operations of addition and subtraction

- Do the calculation from left to right.

$$3620 - 1548 + 4372$$
$$= 2072 + 4372$$
$$= 6444$$

- When it is not enough to subtract, add first and then subtract.

$$3620 - 5148 + 4372$$
$$= 3620 + 4372 - 5148$$
$$= 7992 - 5148$$
$$= 2844$$

3. Brackets

- ( ) is a pair of brackets. When there is a pair of brackets, we do the calculations in the brackets first.

$$125 + (360 - 212)$$
$$= 125 + 148$$
$$= 273$$

$$243 - (80 + 5)$$
$$= 243 - 85$$
$$= 158$$

Unit 2: Four arithmetic operations (Exercises 4-6)

1. Mixed operations of addition and multiplication

- Do the multiplication first and then the addition.

$$60 + 15 \times 4$$
$$= 60 + 60$$
$$= 120$$

- Do the calculation in the brackets first.

$$60 + (25 + 15) \times 4$$
$$= 60 + 40 \times 4$$
$$= 60 + 160$$
$$= 220$$

Dress B and trousers C cost $530 in total originally.

530 – 50

= 480

After the reduction of $50, $480 should be paid. $480 is smaller than $493. Thus, the cheapest combination will be dress B and trousers C.
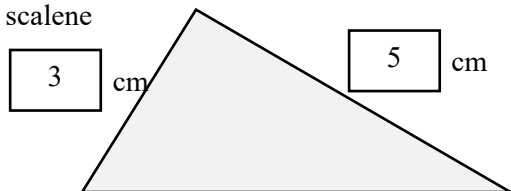
(Accept any reasonable explanation)

Common mistake 1:
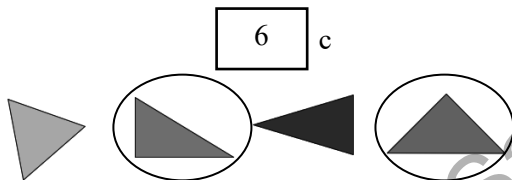- Forget to write the answer to respond to the question.

Common mistake 2: The cheapest combination will be dress A and trousers C. ✗
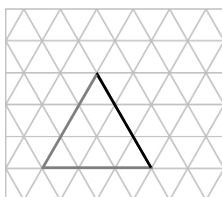- Neglect 'Get $50 off on purchases over $500'.
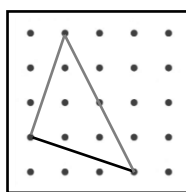
19. scalene

3 cm   5 cm   6 c

20.

21. isosceles

22. a.

b.

(Accept any reasonable answers)

23. a. ✓
   b. ✓
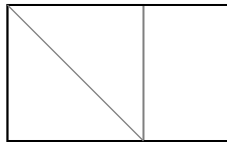   **c.** ✓
   d. ✓
   e. ✗
   f. ✗

24. A, C

[Option B: $9 + 9 = 18$, the total length of the 2 shorter sticks is equal to the length of the longest stick. Thus, a triangle cannot be formed.]

Common mistake: B ✗
- Neglect that the total length of the 2 shorter sides of a triangle must be longer than the longest side.

25.

(Accept any reasonable answers)

11 Fractions (1)

1. $\frac{2}{4}$, two fourths

2. $\frac{3}{6}$, three sixths

3. $\frac{5}{8}$, five eighths
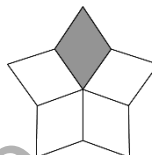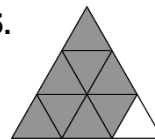
4.   **5.**   **6.**

(4-5 Accept any reasonable answers)

7. $\frac{10}{10}$, $\frac{14}{14}$

8. $\frac{21}{21}$, $\frac{19}{19}$

9. $\frac{2}{3}$

10. $\frac{9}{15}$

11. D

[$\frac{6}{8} = \frac{3}{4}$]

12. E

[$\frac{4}{6}$]

13. B

[$\frac{2}{6} = \frac{1}{3}$]

14. F

[$\frac{3}{3} = \frac{6}{6} = 1$]

15. C

$[\quad \frac{1}{4}]$
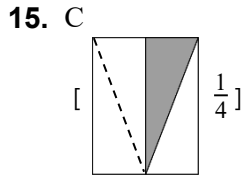
Common mistake: $\frac{1}{3}$ ✗

- Neglect that each part of a fraction should be equal.

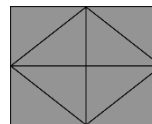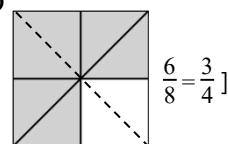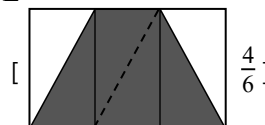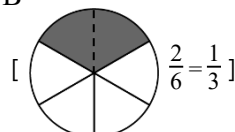**16.** A

$[\quad \frac{2}{4} = \frac{1}{2}$
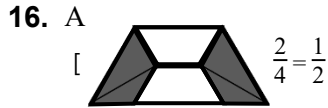
The shape is made up of 4 trapeziums of the same size.

The coloured parts occupy 2 trapeziums.]

17. B

MCQ Explanation

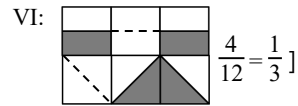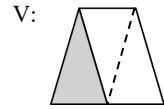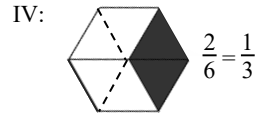| Wrong choice	Reason
A	Mistakenly regard that one of the 9 equal parts is 1.
C	Mistakenly regard that nine of the 9 equal parts is 9.
D	Mistakenly regard that 9 equal parts are 9.

18. C

[Divide the figure into 7 equal parts. The coloured

parts occupy 3 equal parts.]
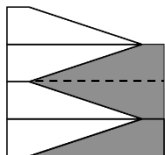
MCQ Explanation

Wrong choice	Reason
A	Neglect that each part of a fraction is equal.
B	Neglect that each part of a fraction is equal.
D	Mistakenly regard that the following figure is the whole figure.

19. D

[I: not 3 equal parts
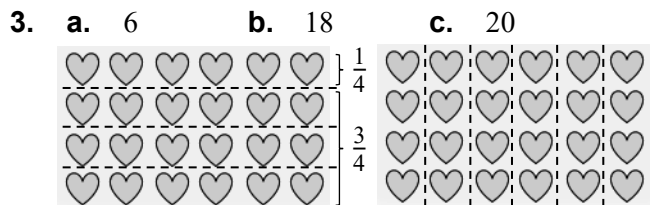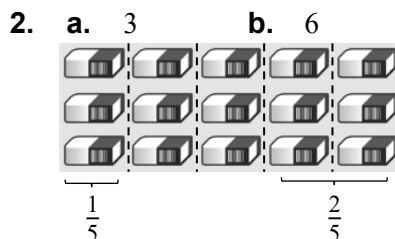
II: $\frac{2}{3}$

III: $\frac{1}{4}$

IV: $\frac{2}{6} = \frac{1}{3}$

V:

VI: $\frac{4}{12} = \frac{1}{3}$]

MCQ Explanation

Wrong choice	Reason
A	I: Neglect that each part of a fraction is equal, and II: Mistake the fraction that the white part of the whole figure represents is the fraction that the coloured part of the whole figure represents.
B	I: Neglect that each part of a fraction is equal, and III: Mistake the white part as the denominator and the coloured part as the numerator, or wrongly count the number of equal parts.
C	Neglect the coloured part of figure VI is $\frac{4}{12}$ of the whole figure, that is $\frac{1}{3}$.

12 Fractions (2)

1. **a.** $\frac{3}{9}$ or $\frac{1}{3}$ **b.** $\frac{4}{9}$ **c.** $\frac{2}{9}$

2. **a.** 3 **b.** 6

$\frac{1}{5}$ $\frac{2}{5}$

3. **a.** 6 **b.** 18 **c.** 20

$\frac{1}{4}$ $\frac{3}{4}$ $\frac{5}{6}$

4. $\frac{5}{11}$

5. **a.** 4 **b.** $\frac{2}{4}$ $[\frac{8}{16} = \frac{2}{4}]$

6. **a.** 6 **b.** $\frac{2}{5}$