

Year 6 Study Guide

Term 2 2025 - 2026

<u>Subject</u>	<u>Topics included</u>	<u>Refer to</u>
Mathematics	<u>Topic 1: Unit 5 Fractions (2)</u>	PowerPoint Presentation saved in General-Files-Assessments Topics- Maths. Textbook Reference: Pearson Maths Practice book 6A: pgs.147-150 - Fraction of an amount - Fraction of an amount – find the whole PowerPoint Reference: Go through all the following PowerPoints uploaded onto Teams: - Fraction of an Amount - Fraction of an Amount – Finding the whole
	<u>Unit 6 - Metric Measures</u>	Textbook Reference: Pearson Maths Practice book 6A: pgs.155 - 161 - Metric Measures - Convert metric measures - Calculate with metric measures PowerPoint Reference: Go through all the following PowerPoints uploaded onto Teams: - Metric Measures - Convert metric measures - Calculate with metric measures
	<u>Unit 7 - Ratio and Proportion</u>	Textbook Reference: Pearson Maths Practice book 6B: pgs.6-32 - Use ratio language - Introduce the ratio symbol - Use ratio - Scale drawing - Scale factors - Similar shapes - Ratio problems - Problem solving – ratio and proportion (1) - Problem solving – ratio and proportion (2) PowerPoint Reference: Go through all the following PowerPoints uploaded onto Teams: - Use ratio language - Introduce the ratio symbol - Use ratio - Scale drawing - Scale factors - Similar shapes - Ratio problems - Problem solving – ratio and proportion (1) - Problem solving – ratio and proportion (2)

Name:	Term: 2 - Year 6	
Subject: Math	Date:	Practice Worksheet
LO: I can apply knowledge to complete given tasks.		

Math Practice Worksheet Year 6 2025 – 2026 Term 2

"Empower students to learn for life and strive for excellence so that they can contribute positively to the global society"

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TOPIC 1: Fractions of Amounts

1.1 Work out these calculations.

a) $\frac{7}{8}$ of 240 km = _____ km

d) $\frac{1}{4}$ of _____ = 20

b) $\frac{3}{4}$ of 2 hours = _____

e) $\frac{3}{4}$ of _____ = 48

c) $\frac{2}{5}$ of 450 m = _____

f) $180 = \frac{9}{10}$ of _____

1.2 Solve the following real-world problems:

- a) There are 72 buttons in a box. $\frac{3}{8}$ of the buttons are red and the rest are blue.

How many buttons are blue?

- b) Adam won £960 in a competition. He gave $\frac{1}{4}$ of the money to his brother.

How much money did he have left?

LO: ☐ Excellent! ☐ Very good! ☐ Good job! ☐ Revise

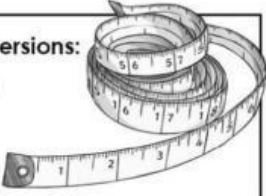
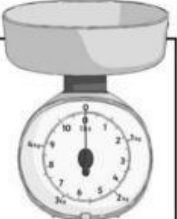
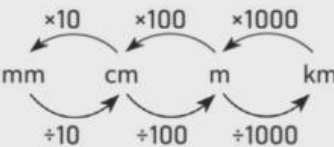
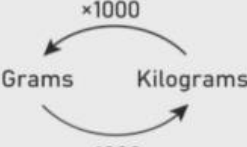
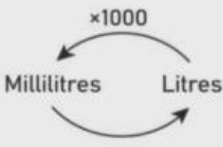
"Empower students to learn for life and strive for excellence so that they can contribute positively to the global society"

- c) Lina and Omar each bake 84 cookies for charity. Lina sells $\frac{5}{6}$ of her cookies. Omar sells $\frac{3}{7}$ of his cookies.
Who sells more cookies? How many more?

- d) Danny spends $\frac{2}{5}$ of his pocket money on a book.
The book costs £12.
How much pocket money does he get?

- e) Last week, Karim spent £63 on groceries. This is $\frac{3}{8}$ of his weekly wage. Maya spent £72. This is $\frac{4}{9}$ of her weekly wage.
Who earns more money per week? _____
How much more? _____

TOPIC 2: Metric Measurements

Length Conversions: 1km = 1000m 1m = 100cm 1cm = 10mm	Mass Conversions: 1kg = 1000g	Volume Conversions: 1l = 1000ml
		
		

LO: ☐ Excellent! ☐ Very good! ☐ Good job! ☐ Revise

2.1 Identify and circle the best estimate for each measurement.

- a) the height of a door: 2 m 20 cm
- b) the mass of an adult dog: 25 g 25 kg
- c) the length of a pencil sharpener: 21 mm 21 cm
- d) the capacity of a small carton of juice: 2 ml 200 ml
- e) the mass of a loaf (not slice) of bread: 80 g 800 g

2.2 Convert the following metric measurements.

- a) 250 mm = _____ cm
- b) 750 g = _____ kg
- c) $\frac{1}{4}$ litres = _____ ml
- d) $\frac{1}{2}$ litres = _____ ml
- e) 4 km = _____ m
- f) 5 kg = _____ g
- g) 10,000 g = _____ kg
- h) 3 m = _____ cm
- i) 34,000 m = _____ km
- j) 2,500 ml = _____ L

TOPIC 3: Finding a Ratios, Rates and Proportion

3.1 In each box, draw triangles and circles to show the ratio.

- a) The ratio of triangles to circles is 3 : 1

- b) The ratio of triangles to circles is 3 : 2

- c) The ratio of triangles to circles is 1 : 3

- d) The ratio of triangles to circles is 1 : 4

3.2 Solve the following real-world problems.

- a) A basket contains red and green apples. For every 3 red apples there are 5 green apples.**

If there are 18 red apples, how many green apples are there?

$\times 6$ ↓	3	:	5	$\times 6$ ↓	
	18	:			

- b) In a classroom, for every 2 girls there are 7 boys.**

If there are 8 girls in the class, how many boys are there?

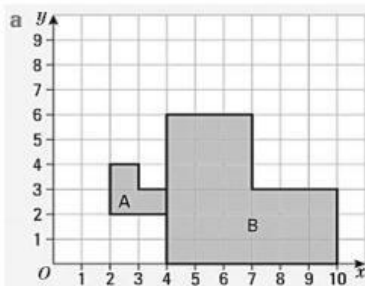
- c) A design is made using stars and hearts. For every 4 stars there are 3 hearts.**

Explain why the design cannot have 10 hearts.

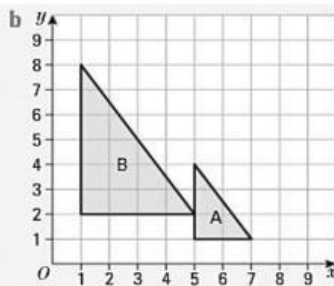
- d) A town map has a scale of 1 cm : 500 m. Aisha measures the distance between the park and the library as 8 cm.**

What is the actual distance in kilometers between the park and the library?

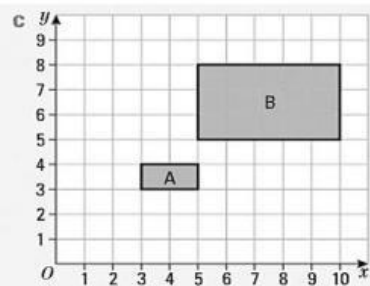
3.3 Evaluate all the figure pairs and identify the scale factor of enlargement for each pair, if possible.



a) Shape A was enlarged by a scale factor of _____ to get shape B.

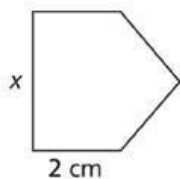


b) Shape A was enlarged by a scale factor of _____ to get shape B.

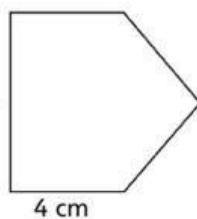


c) Sara says she has enlarged shape A by a scale factor of 3 to get shape B. Is Sara correct? Explain your answer.

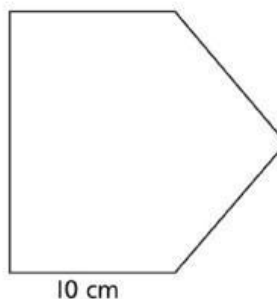
3.4 These shapes are similar. Find the missing sides.



10 cm



y



x = cm

y = cm

3.5 Calculate the following:

a) Mr Lopez counts 63 balls in the PE cupboard. For every 2 footballs there are 5 tennis balls.

How many of each ball are there?

There are _____ footballs and _____ tennis balls.

b)

There are 40 socks in a drawer.

The ratio of spotty to plain socks is 3 : 2.



a) How many spotty socks are there?

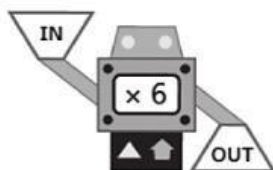
b) How many pairs of plain socks can be made?

c) A florist is making a bouquet of flowers. For every 5 roses in the bouquet there are 2 lilies. There are 25 roses.

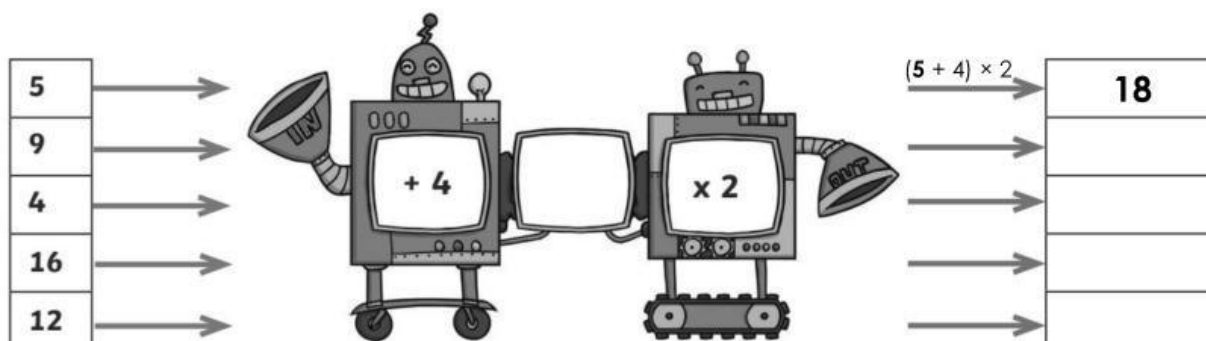
How many lilies are there?

TOPIC 4: Finding a Rule

4.1 Complete the table or diagram for the function machines:



Input	1	2	5	11	18	q
Output	6					



4.2 Complete the rules:

- a) The number of legs on **b** spiders is _____.
- b) The number of wheels on **v** tricycles is _____.
- c) The number of days in **m** weeks is _____.
- d) The number of weeks in **k** years is _____.
- e) Six days less than **p** weeks is _____.
- f) **Liam started his homework 20 minutes before Sara. Complete the table to show how long they have been working.**

Minutes Liam has been working	40	55	t		
Minutes Sara has been working				80	s

Complete these rules:

*If Liam has been working for **t** minutes, Sara has been working for _____.*

*If Sara has been working for **s** minutes, Liam has been working for _____.*

- g) **Here is a growing pattern of squares made from matchsticks. Each new square shares one side with the previous square.**

Number of squares	1	2	3	4	5	<i>n</i>	100
Number of sticks used	4	7	10				

Complete the rule.

*To make **n** squares, _____ sticks are used.*

Using the general rule, calculate how many sticks will be needed to pack 100 squares.

TOPIC 5: Algebraic Expressions and Equations.

To evaluate an expression means to find its value.

5.1 Evaluate the following expressions:

a) $70 - 2y$, if $y = 5$

b) $12m + 3$, if $m = 6$

c) $34 + p - y$, if $p = 5$ and $y = 12$

d) $40 - 3h$, if $h = 10$

e) $m + 9$, if $m = 10$

f) $25k + 12 - k$, if $k = 4$

5.2 Find the value of y in the following equations:

a) $7y = 63$

b) $3y - 12 = 6$

c) $82 = 50 + 8y$

d) $2y - 20 = 100$

e) $\frac{y}{3} = 11$

f) $y + 3 = 50$

g) $21 - y = 7$

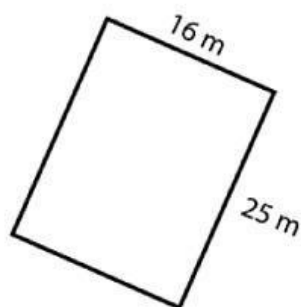
h) $60 = 60y$

i) $19 = 1 + \frac{y}{2}$

TOPIC 6: Area and Perimeter of Shapes

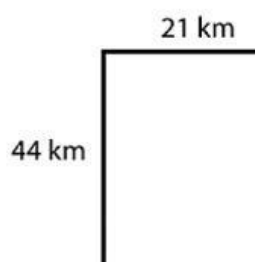
6.1 Find the area and perimeter of each shape:

a)



Area = _____
Perimeter = _____

b)



Area = _____
Perimeter = _____

TOPIC 7: Multiplying and Dividing Decimals by Powers of 10

7.1 Calculate the following:

a) $420 \div 10 =$ _____

e) $4,500 \div 1,000 =$ _____

b) $5.02 \times 100 =$ _____

f) $20.15 \times 10 =$ _____

c) $0.003 \div 10 =$ _____

g) $1.5 \times 1,000 =$ _____

d) $750 \div 100 =$ _____

h) $3.50 \div 100 =$ _____

TOPIC 8: Rounding Decimals

8.1 Round each number to 2 decimal places:

a) $17.9334 \approx$ _____ c) $199.22223 \approx$ _____

b) $23.051 \approx$ _____ d) $1001.009 \approx$ _____

8.2 Complete the table:

Number	Rounded to the nearest whole number	Rounded to 1 decimal place
3.72		
4.18		
39.16		
0.871		
3.025		

Mental Math

1. What is 50% of 90	2. What is $9 - 3 \times 2$?
3. $4.6 \times 100 =$	4. $3.5 \times \underline{\hspace{2cm}} = 7$
5. Add $5.2 + 5.2 + 1.2$	6. The sequence starts at 3. Add 7 every time. Write the next 4 numbers in the sequence.
7. What is the area of a rectangle with length 40 cm and width 2 cm?	8. Enlarge the ratio 4:5 by a scale factor of 5.
9. Calculate $\frac{1}{3}$ of 90	10. True or False. 500 ml = 5 L
11. What is $\frac{1}{10}$ of 600	12. $45 \times 100 =$
13. $218 + \underline{\hspace{2cm}} = 450$	14. $65,500 \div 10 =$
15. $2^3 =$	16. Which is bigger? $\frac{24}{30}$ or $\frac{9}{10}$?

Think out of the Box.

Solve the following Math riddle.

$$\begin{array}{rclcl} \text{Orange} & + & \text{Orange} & = & 30 \\ \text{Orange} & + & \text{Apple} & + & \text{Apple} = 55 \\ \text{Banana} & + & \text{Apple} & \times & \text{Orange} = 306 \\ \text{Banana} & \times & \text{Apple} & - & \text{Banana bunch} = \end{array}$$

	=	_____
	=	_____
	=	_____