Power Maths

White Rose Maths

White Rose Maths Edition

Year 4
Practice Book
4B

Pearson

Series Editor: Tony Staneff

Year 4 Practice Book 4B

Draw your favourite food.

How would you share it equally between your friends.

This book belongs to _____ .

My class is _____ .

Series editor: Tony Staneff

Lead author: Josh Lury

Consultants (first edition): Professor Liu Jian and Professor Zhang Dan

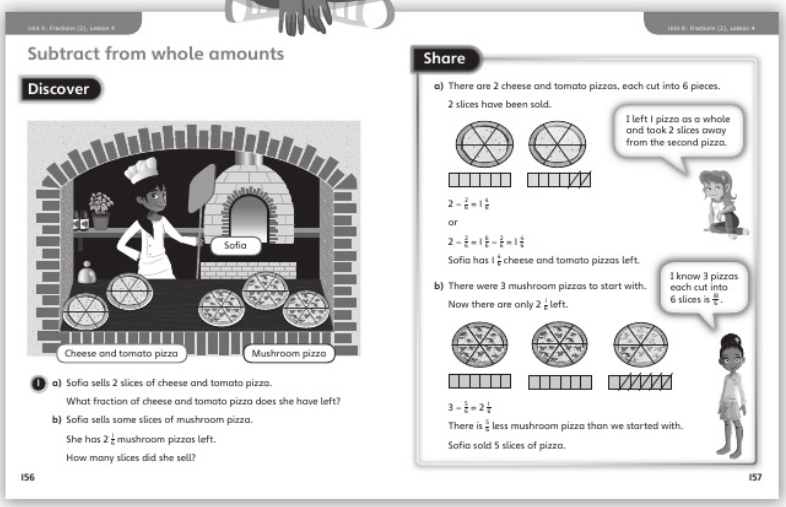
Author team (first edition): Tony Staneff, Josh Lury, Belle Cottingham, Jonathan East, Caroline Hamilton, Rebecca Holland, Stephen Monaghan, and Paul Wrangles

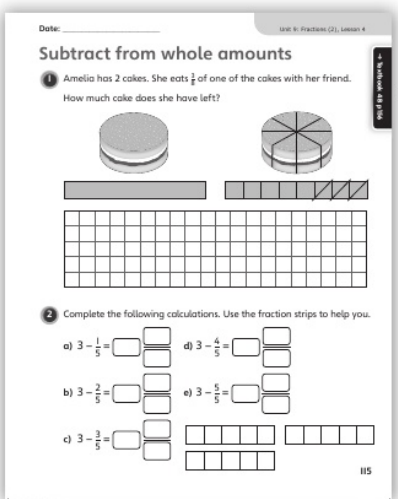
Pearson

Contents

How to use this book

Use the **Textbook** first to learn how to solve this type of problem.





This shows you which **Textbook** page you need.

Have a go at questions by yourself using this **Practice Book**. Use what you have learnt.

Challenge questions make you think hard!

Questions with this light bulb make you think differently.

Reflect

Each lesson ends with a **Reflect** question so you can think about what you have learnt.

Reflect

$4 - \frac{2}{9} = \frac{1}{4}$

Is this calculation correct? Draw diagrams to explain your reasoning.

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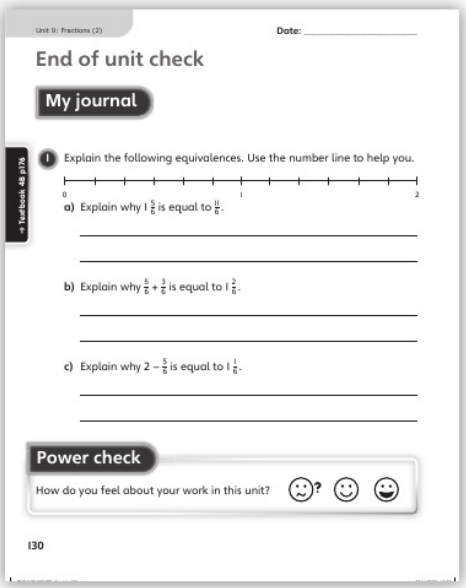
Use **My power points** at the back of this book to keep track of what you have learnt.

My journal

At the end of a unit your teacher will ask you to fill in **My journal**.

This will help you show how much you can do now that you have finished the unit.



Unit 9: Fractions (2) Date: _____

End of unit check

My journal

→ Textbook 4B p176

1 Explain the following equivalences. Use the number line to help you.

0 1 2

a) Explain why $1\frac{5}{8}$ is equal to $\frac{13}{8}$.

b) Explain why $\frac{5}{8} + \frac{3}{8}$ is equal to $1\frac{2}{8}$.

c) Explain why $2 - \frac{5}{8}$ is equal to $1\frac{3}{8}$.

Power check

How do you feel about your work in this unit? 😕? 🙂 😀

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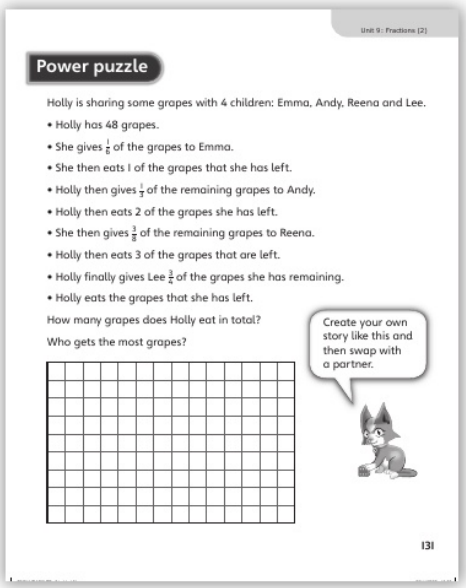

Unit 9 : Fractions (2)

Power puzzle

Holly is sharing some grapes with 4 children: Emma, Andy, Reena and Lee.

- Holly has 48 grapes.
- She gives $\frac{1}{2}$ of the grapes to Emma.
- She then eats 1 of the grapes that she has left.
- Holly then gives $\frac{1}{3}$ of the remaining grapes to Andy.
- Holly then eats 2 of the grapes she has left.
- She then gives $\frac{1}{8}$ of the remaining grapes to Reena.
- Holly then eats 3 of the grapes that are left.
- Holly finally gives Lee $\frac{3}{4}$ of the grapes she has remaining.
- Holly eats the grapes that she has left.

How many grapes does Holly eat in total?

Who gets the most grapes?

Create your own story like this and then swap with a partner.

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Date: _____

→ Textbook 4B p8

Factor pairs

1 Write the factor pairs for the number 10.

a) ○○○○○○○○○○

□ × □ = 10

□ × □ = 10

b)
○○○○○
○○○○○

□ × □ = 10

□ × □ = 10

2 Write the factor pairs for the number 14.

a)

□ × □ = 14

□ × □ = 14

b)

□ × □ = 14

□ × □ = 14

3 Write the factor pairs for the number 15.

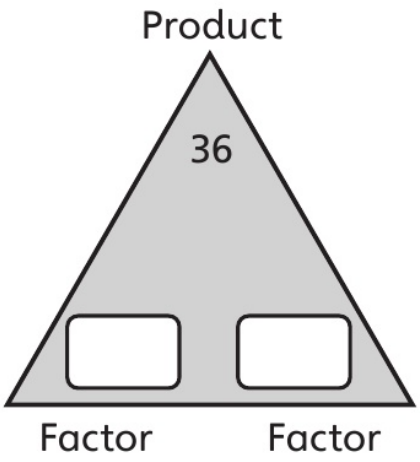
□ × □ = 15

□ × □ = 15

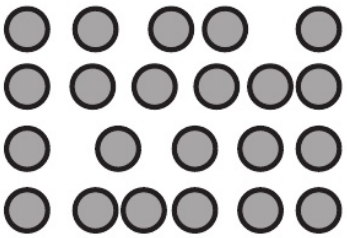
□ × □ = 15

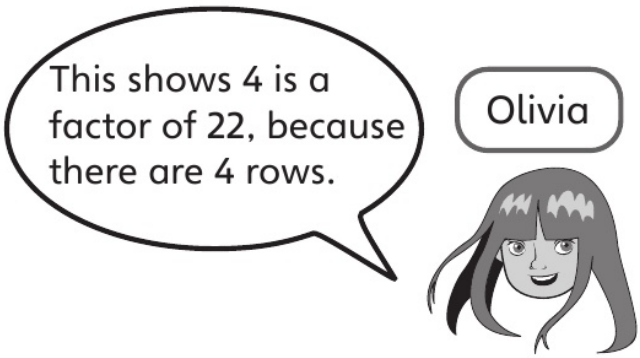
□ × □ = 15

4 Find all the factor pairs for the number 36.



5 Do you agree with Olivia? Explain your answer.





6 Write down all the factor pairs of

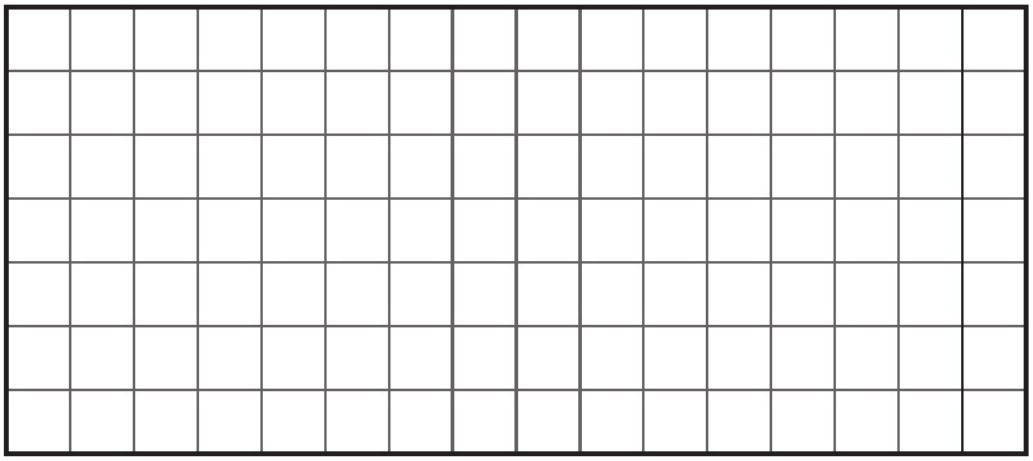
a) 24 _____

b) 18 _____

c) 25 _____

CHALLENGE

7 Find all the factor pairs for the number 100.



Reflect

Which of these numbers has a factor of 2?

Discuss with a partner how you know.

30	31	32	33	34	35

→ Textbook 4B p12

Multiply and divide by 10

1 Complete the calculations.

a) 5 × 10 = ☐

b) 15 × 10 = ☐

c) 35 × 10 = ☐

d) ☐ × 10 = 650

e) 90 ÷ 10 = ☐

f) 190 ÷ 10 = ☐

g) 490 ÷ 10 = ☐

h) ☐ ÷ 10 = 99

2 Multiply each number by 10. Write it in the place value grid.

a)

Th	H	T	O
		1	8

b)

Th	H	T	O
	3	1	8

c)

Th	H	T	O
		3	5

d)

Th	H	T	O
	1	0	3

3 Divide each number by 10. Write it in the place value grid.

a)

Th	H	T	O
	4	5	0

b)

Th	H	T	O
1	6	0	0

4 Find the missing numbers.

a) 43 — × 10 → ☐ ; ☐ — ÷ 10 → 43

b) 65 — × 10 → ☐ ; ☐ — ÷ 10 → 65

c) ☐ — × 10 → 570 ; 570 — ÷ 10 → ☐

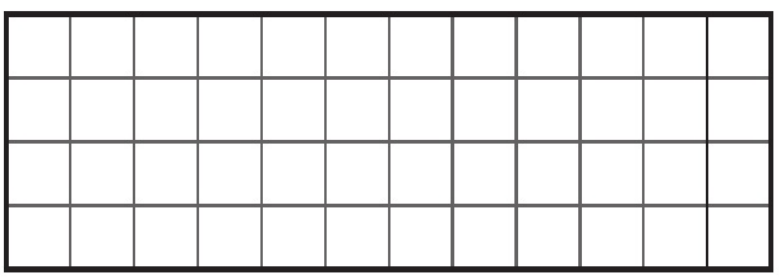
d) ☐ — × 10 → 800 ; 800 — ÷ 10 → ☐

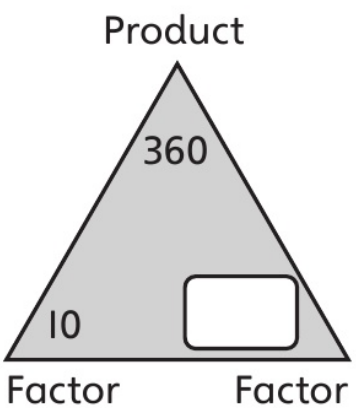
e) 703 — × 10 → ☐ ; ☐ — ÷ 10 → 703

f) ☐ — × 10 → 1,560 ; 1,560 — ÷ 10 → ☐

5 Complete the product factor triangle.

Write four number sentences for the fact family.





6 Complete

a) 130 × 10 = ☐

b) ☐ × 10 = 7,900

c) ☐ × 10 = 6,050

d) ☐ ÷ 10 = 45

e) ☐ ÷ 10 = 530

f) 7,530 ÷ 10 = ☐

CHALLENGE

7 **a)** A worm is 12 cm long.

A snake is 10 times as long as the worm.

What is the length of the snake? ☐

b) Write your own story for

25 x 10 = 250

Reflect

Tell a partner what happens when you multiply a number by 10.

Date: _____

→ Textbook 4B p16

Multiply and divide by 100

1 Complete the calculations.

a) 7 × 100 = ☐

b) 17 × 100 = ☐

c) 37 × 100 = ☐

d) ☐ × 100 = 6,700

e) 6,600 ÷ 100 = ☐

f) 6,700 ÷ 100 = ☐

g) 6,800 ÷ 100 = ☐

h) ☐ ÷ 100 = 7,000

2 Multiply each number by 100. Write it in the place value grid.

a)

Th	H	T	O
			8

b)

Th	H	T	O
		2	6

c)

Th	H	T	O
		6	0

d)

Th	H	T	O
		9	3

3 Divide each number by 100. Write it in the place value grid.

a)

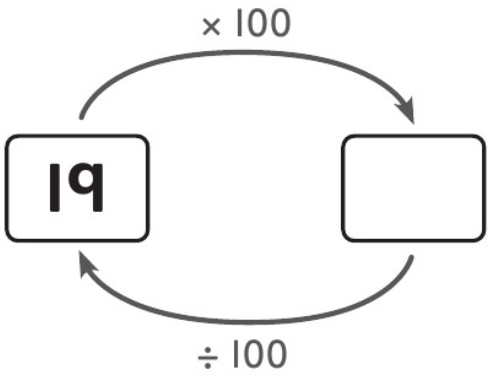
Th	H	T	O
9	4	0	0

b)

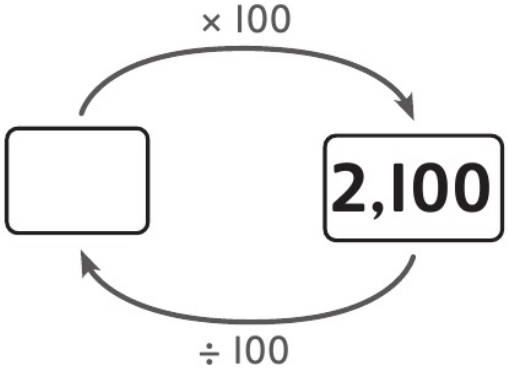
Th	H	T	O
4	0	0	0

4 Find the missing numbers.

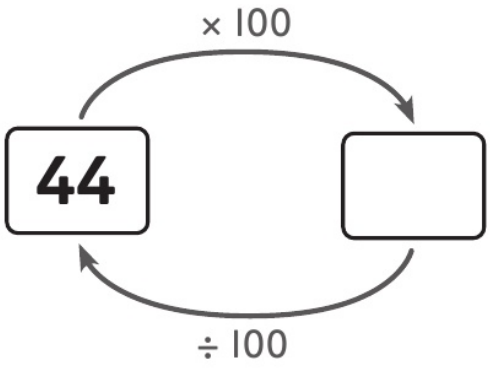
a)



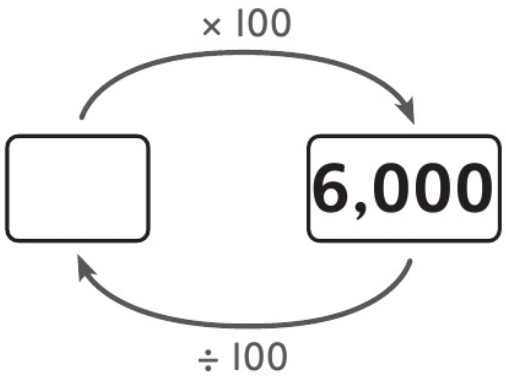
b)



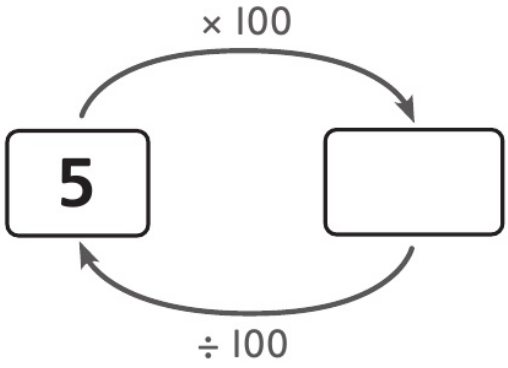
c)



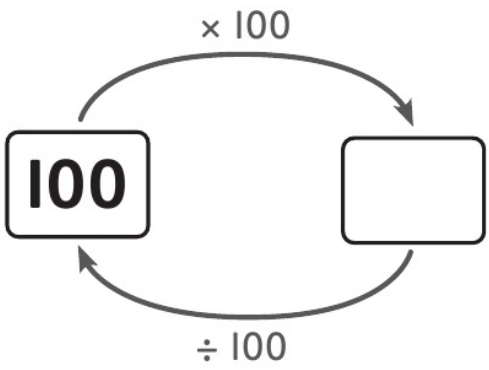
d)



e)



f)



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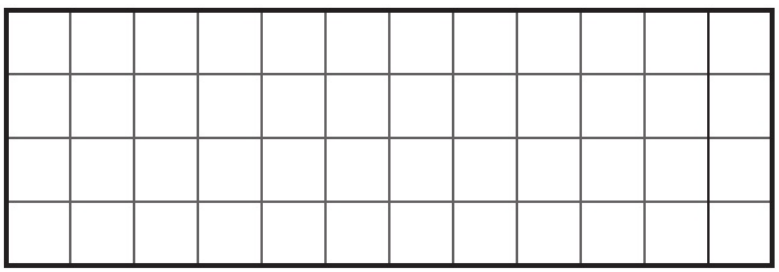
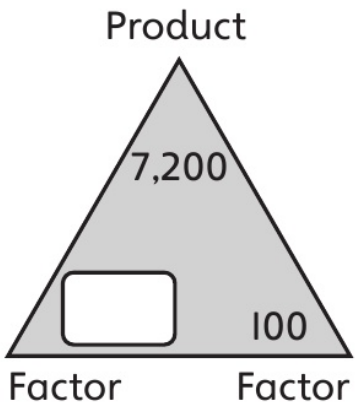


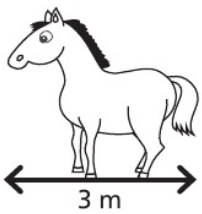


CHALLENGE

6 Write the length of each animal in cm.

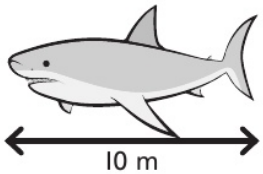
1 m is 100 cm.

a)



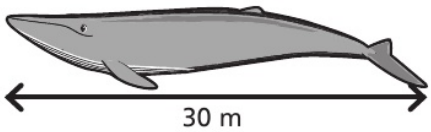
☐ cm

b)



☐ cm

c)



☐ cm

Reflect

Work with a partner.

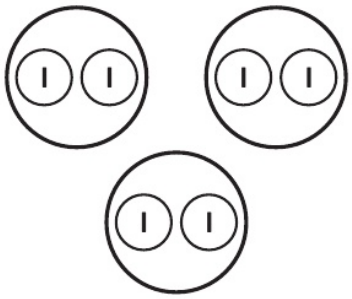
Describe everything you know about multiplying and dividing by 10 and 100.

→ Textbook 4B p20

Related facts – multiplication

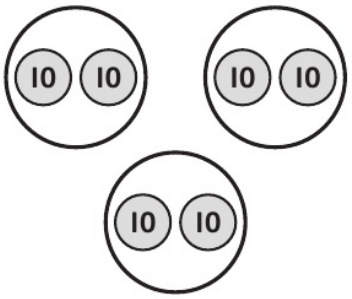
1 Complete the multiplications.

a)



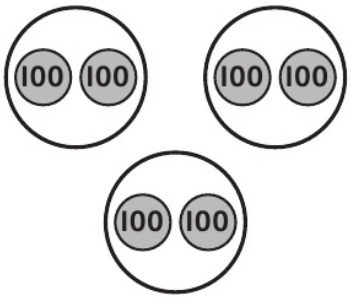
$3 \times 2 =$ ☐

b)



$3 \times 20 =$ ☐

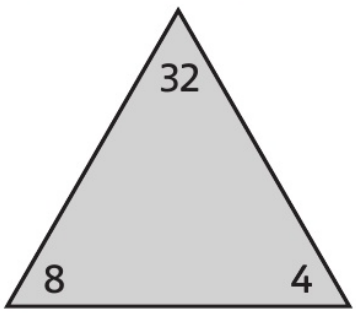
c)



$3 \times 200 =$ ☐

2 Complete the multiplications.

a) Product



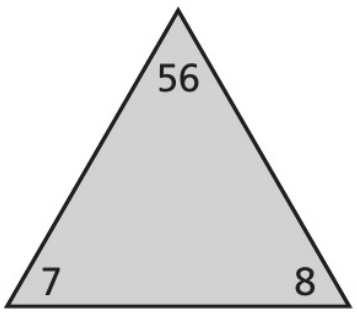
$8 \times 40 =$ ☐

$8 \times 400 =$ ☐

$80 \times 4 =$ ☐

$800 \times 4 =$ ☐

b) Product



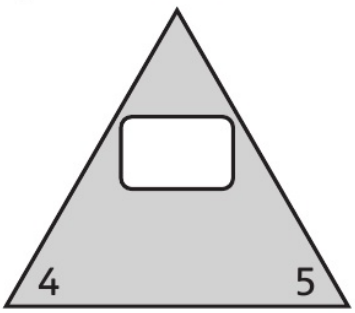
$70 \times 8 =$ ☐

$80 \times 7 =$ ☐

$7 \times 800 =$ ☐

$8 \times 700 =$ ☐

c) Product



$5 \times 40 =$ ☐

$500 \times 4 =$ ☐

$400 \times 5 =$ ☐

$5 \times 50 =$ ☐