POWER MATHS

White Rose Maths

White Rose Maths Edition

Year 6 Practice Book 6A

Pearson

Series Editor: Tony Staneff

Year 6 Practice Book 6A

White Rose Maths Edition

What did you like doing best in maths in Year 5?

Draw or write an example here.

This book belongs to _____ .

My class is _____ .

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Pearson

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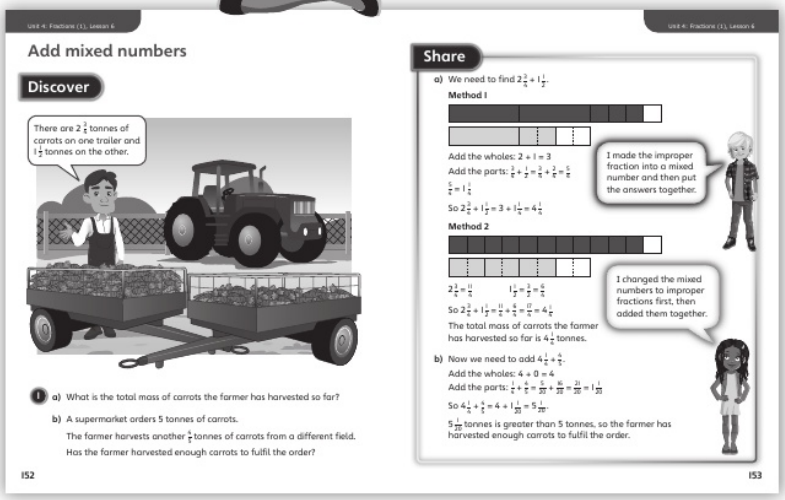
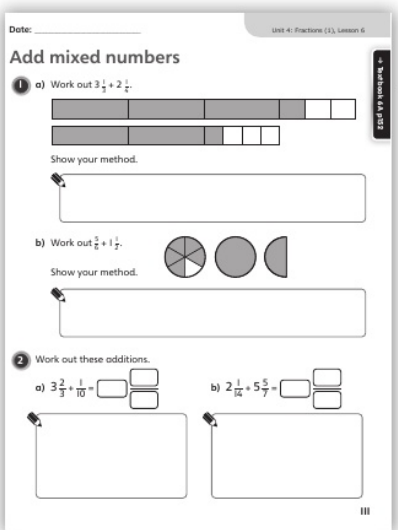
How to use this book

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





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

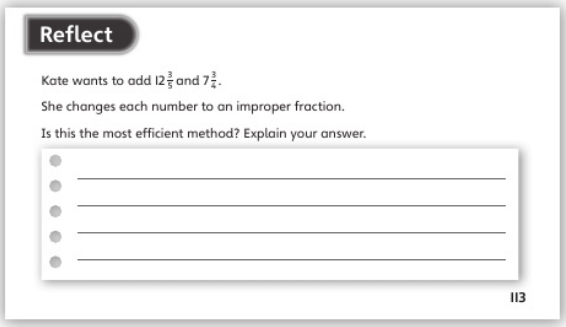
Have a go at questions by yourself using this **Practice Book**. Use what you have learnt.

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

Kate wants to add $12\frac{3}{7}$ and $7\frac{3}{4}$.

She changes each number to an improper fraction.

Is this the most efficient method? Explain your answer.

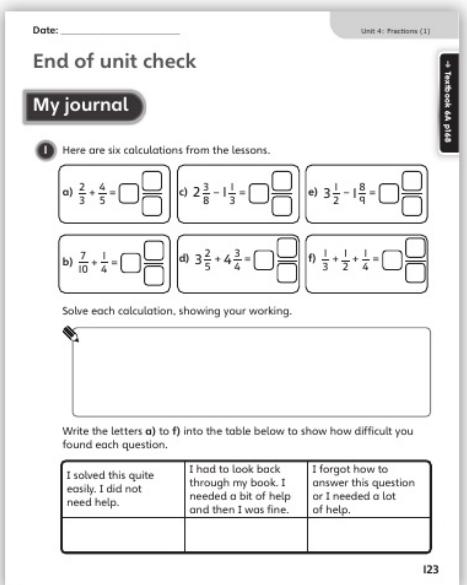
113

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.



Date: _____

Unit 4: Fractions (1)

End of unit check

My journal

1 Here are six calculations from the lessons.

a) $\frac{2}{3}+\frac{4}{5}=$ ☐/☐

c) $2\frac{3}{8}-1\frac{1}{3}=$ ☐/☐

e) $3\frac{1}{2}-1\frac{8}{9}=$ ☐/☐

b) $\frac{7}{10}+\frac{1}{4}=$ ☐/☐

d) $3\frac{2}{5}+4\frac{3}{4}=$ ☐/☐

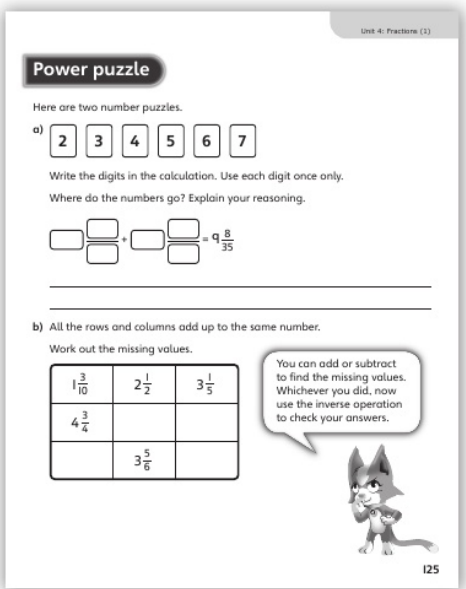
f) $\frac{1}{3}+\frac{1}{2}+\frac{1}{4}=$ ☐/☐

Solve each calculation, showing your working.

Write the letters **a)** to **f)** into the table below to show how difficult you found each question.

I solved this quite easily. I did not need help.	I had to look back through my book. I needed a bit of help and then I was fine.	I forgot how to answer this question or I needed a lot of help.

123



Unit 4: Fractions (1)

Power puzzle

Here are two number puzzles.

a)

2	3	4	5	6	7

Write the digits in the calculation. Use each digit once only.

Where do the numbers go? Explain your reasoning.

☐☐/☐ + ☐☐/☐ = $9\frac{8}{35}$

b) All the rows and columns add up to the same number.

Work out the missing values.

$1\frac{3}{10}$	$2\frac{1}{2}$	$3\frac{1}{5}$
$4\frac{3}{4}$		
	$3\frac{5}{6}$	

You can add or subtract to find the missing values. Whichever you did, now use the inverse operation to check your answers.

125

Date: _____

→ Textbook 6A p8

Numbers to 1,000,000

1 Write the numbers that are shown on the place value grids.

a)

HTh	TTh	Th	H	T	O
●●●	●●	●●●● ●●●●	●●●●	●	●●

b)

HTh	TTh	Th	H	T	O
	●●●●● ●●	●●	●●●		●●●●

2 Write each of the numbers in numerals.

a) one hundred and twenty-three thousand

b) four hundred and thirty-nine thousand, two hundred and eighty-six

c) ninety-seven thousand, one hundred and three

d) three hundred and five thousand, two hundred and forty-six

3 What is the value of each underlined digit?

a) 731,<u>1</u>42 _____

b) 2<u>4</u>,904 _____

c) 7,37<u>3</u> _____

d) <u>5</u>18,420 _____

e) 112,30<u>4</u> _____

f) 35,<u>1</u>82 _____

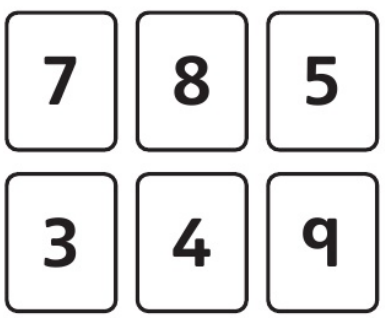
4 Using all six digit cards each time, write a number:

a) that is even

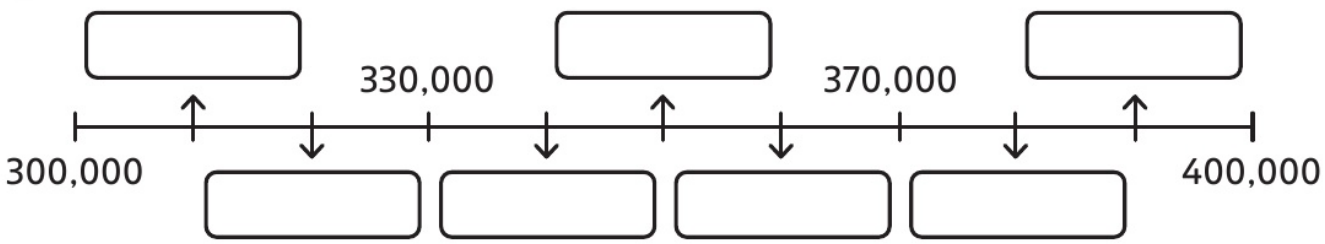
b) that is odd

c) that is a multiple of 5

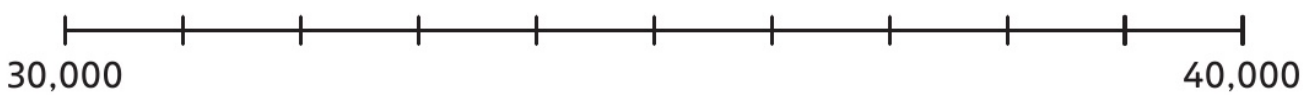
d) that is greater than 500,000 but less than 700,000.



5 **a)** Write the missing numbers.



b) Estimate where the number 39,411 is on the number line.



6 Write the missing numbers. Start from the original number each time.

a)

Number	1,000 more	100 more	10 more	10 less
73,400				

b)

Number	100,000 more	10,000 more	1,000 more	1,000 less
650,167				

7 Max is thinking of a number. His number:

- is a 6-digit, odd number
- has the same number of 1,000s as 1s
- is greater than half a million
- has a digit sum of 26.

CHALLENGE

Write any two numbers that Max might be thinking of.

_____ and _____

Reflect

Write three pieces of information about the number 172,428.
Compare your information with a partner's information.

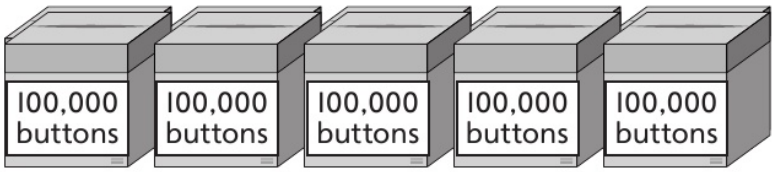
- _____
- _____
- _____

→ Textbook 6A p12

Numbers to 10,000,000

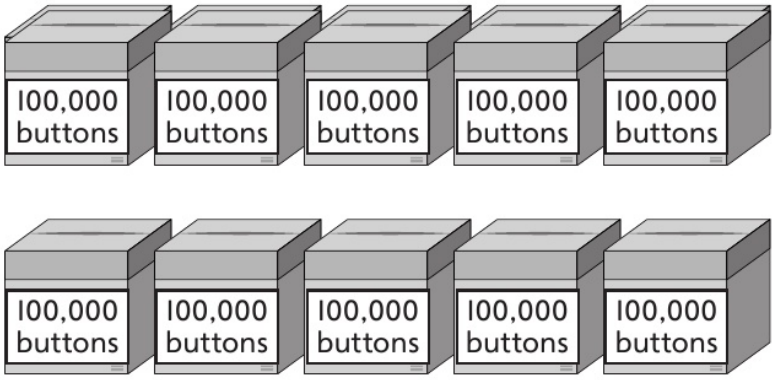
1 How many buttons are there?

a)



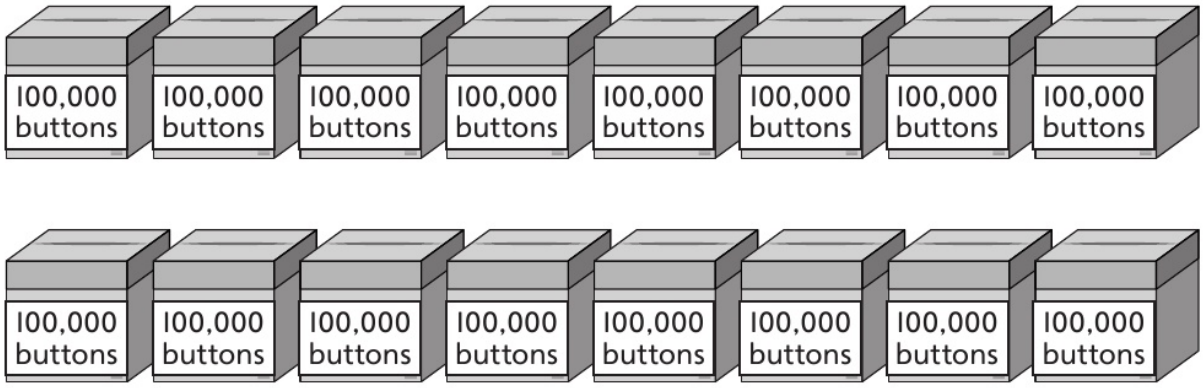
There are ☐ buttons.

b)



There are ☐ buttons.

c)



There are ☐ buttons.

2 What numbers are shown on the place value grids?

Write each number in numerals and in words.

a)

M	HTh	TTh	Th	H	T	O
○○	●●●●● ●●●●		●●●	○○○○	○○○○○ ○○	○

_____

_____

b)

M	HTh	TTh	Th	H	T	O
○○○			●●●●●	○○○○○ ○○	○○○○○ ○	○○○○○

_____

_____

3 Draw counters on the place value grids to show each number.

a) 6,146,005

M	HTh	TTh	Th	H	T	O

b) five hundred and seventy thousand, two hundred and thirty

M	HTh	TTh	Th	H	T	O

4 Write each number in numerals.

a) one million, eighty-four thousand, three hundred

b) two million, two hundred and two thousand and two

c) ninety-two thousand and ninety-two

5 Write a number less than ten million that has:

- 6 as the first and last digits
- 4 thousands
- 5 hundreds
- 0 tens.

6 Danny says you can tell if a number is odd or even by knowing just one of the digits. Is Danny correct? Explain your answer.

Reflect

Write the value of each digit in the number 8,027,361.

Date: _____

→ Textbook 6A p16

Partition numbers to 10,000,000

1 Luis and Bella have each made a number. Partition each of their numbers.

a)

M	HTh	TTh	Th	H	T	O
○○	●●●	●●	●●●●● ●	●●●●	○○○○○	○○○○○ ○○

2,000,000 + 300,000 + 20,000 + 6,000 + ☐ + ☐ + ☐ = ☐

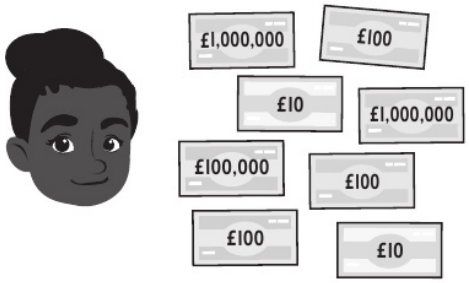
b)

M	HTh	TTh	Th	H	T	O
	●●●	●●●●●			○○○	○○○○○ ○○

☐ + ☐ + ☐ + ☐ = ☐

2 Jamilla has won some toy money in a board game. How much does she have?

Jamilla has £ ☐ .



3 What is the value of the underlined digit in each number?

a) 7,456,820

_____

b) 2,768,415

_____

c) 3,307,184

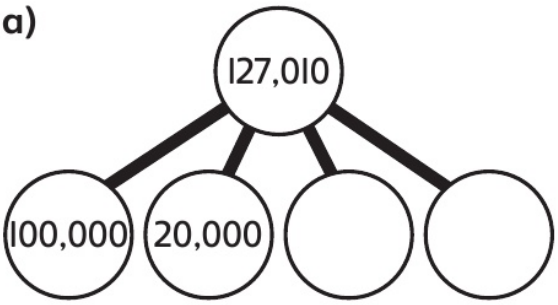
_____

d) 6,000,070

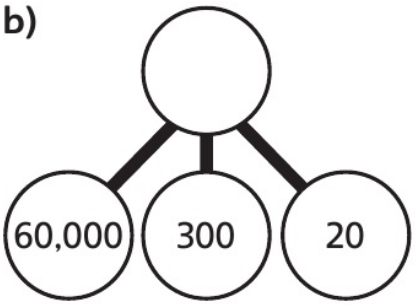
_____

4 Complete the part-whole models.

a)



b)



5 Complete the partitions.

a) 8,047 = 8,000 + 40 + ☐

b) 30,429 = 30,000 + ☐ + ☐ + ☐

c) 260,392 = ☐ + ☐ + ☐ + ☐ + ☐

d) 8,500 + 12 = ☐

e) 720,000 + 3,500 + 70 + 2 = ☐

f) 3,000,000 + 56,000 + 800 + 25 = ☐

g) 412 + 4,000,000 + ☐ = 4,412,412

6 Complete the sentences.

a) 100 more than 3,098,728 is ☐.

b) 1,000 more than 3,098,728 is ☐.

c) 10,000 more than 3,098,728 is ☐.

d) 1 million less than 3,098,728 is ☐.

e) 100,000 less than 3,098,728 is ☐.

7 **a)** Write a 4-digit number that has 7 tens ☐.

b) Write a 5-digit number that has 7 tens ☐.

c) Write a 6-digit number that has 7 tens ☐.

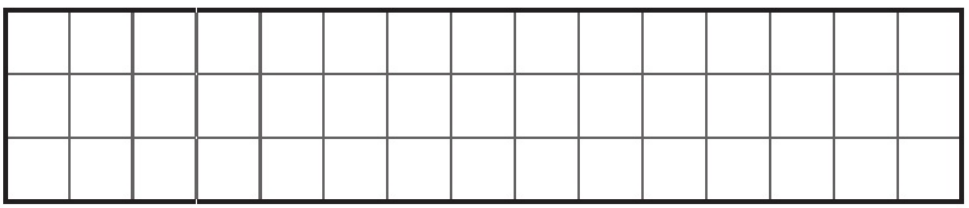
d) Compare your answers with a partner. Discuss what you notice.

8 What is this number?

CHALLENGE

- The number has 7 digits.
- The ten-thousands digit is half the ones digit.
- The hundreds digit is 3 times the millions digit.
- The total of all the digits is 20.

☐



Reflect

Partition the number 4,508,375. Compare your number sentences with a partner's. Discuss how they are the same or different.

→ Textbook 6A p20

Powers of 10

1 Ebo has represented a number.

1,000,000	2,000,000	3,000,000	4,000,000	5,000,000	6,000,000	7,000,000	8,000,000	9,000,000
100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000
10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

a) What number has Ebo represented? ☐

b) Shade in 10 times Ebo's number.

1,000,000	2,000,000	3,000,000	4,000,000	5,000,000	6,000,000	7,000,000	8,000,000	9,000,000
100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000
10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9

c) Shade in 100 times Ebo's number.

1,000,000	2,000,000	3,000,000	4,000,000	5,000,000	6,000,000	7,000,000	8,000,000	9,000,000
100,000	200,000	300,000	400,000	500,000	600,000	700,000	800,000	900,000
10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
100	200	300	400	500	600	700	800	900
10	20	30	40	50	60	70	80	90
1	2	3	4	5	6	7	8	9