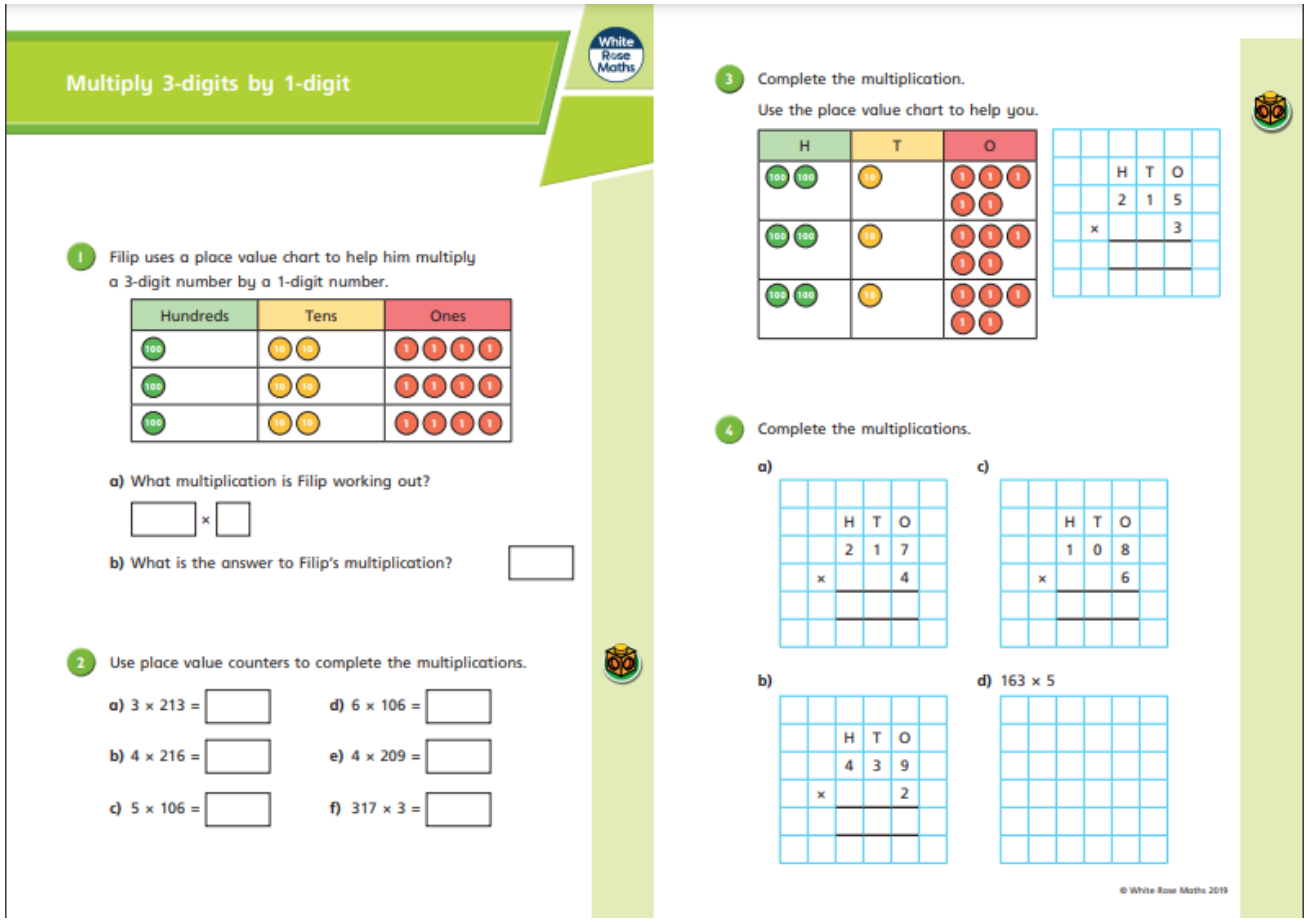
Miss Phillips and Mrs Bowers Maths Home Learning

This week we are mainly focussing on division. In the series on division, you will see different ways to solve calculations, including using PV counters, using the part/whole model and using a number line. Remember that you can use any objects that you have handy to represent PV counters.

Watch the videos, pausing where necessary, and then complete the relevant worksheet. Questions 1-4 tend to be more scaffolded; questions 5 to the end require more careful thought and problem solving skills. Have fun! Contact us if you need any further help.



Multiply 3-digits by 1-digit

White Rose Maths

1 Filip uses a place value chart to help him multiply a 3-digit number by a 1-digit number.

Hundreds	Tens	Ones
100	10 10	1 1 1 1
100	10 10	1 1 1 1
100	10 10	1 1 1 1

a) What multiplication is Filip working out?

☐ × ☐

b) What is the answer to Filip's multiplication? ☐

2 Use place value counters to complete the multiplications.

a) 3 × 213 = ☐

b) 4 × 216 = ☐

c) 5 × 106 = ☐

d) 6 × 106 = ☐

e) 4 × 209 = ☐

f) 317 × 3 = ☐

3 Complete the multiplication.

Use the place value chart to help you.

H	T	O
100 100	10	1 1 1 1 1
100 100	10	1 1 1 1 1
100 100	10	1 1 1 1 1

	H	T	O
	2	1	5
×			3

4 Complete the multiplications.

a)

	H	T	O
	2	1	7
×			4

c)

	H	T	O
	1	0	8
×			6

b)

	H	T	O
	4	3	9
×			2

d) 163 × 5

Monday 1st February

Multiply 3 digit by 1 digit numbers

https://vimeo.com/492456871

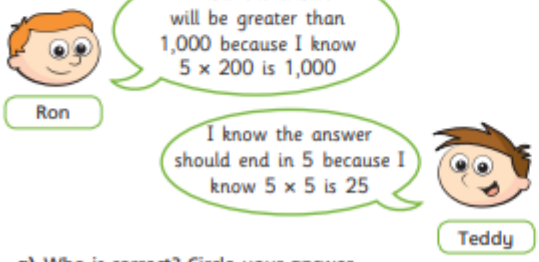
e) 3 × 240

f) 7 × 131

5 A lorry driver travels 156 km per day.

How many kilometres will the lorry driver have travelled after 3 days?

6 Ron and Teddy are working out 5 × 245



a) Who is correct? Circle your answer.

Ron **Teddy** **both** **neither**

b) Use a written method to work out 5 × 245

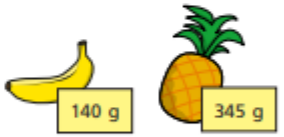
7 There are 7 year groups in a school.

There are 112 children in each year group.

How many children are there in the whole school?

8 A banana weighs 140 g

A pineapple weighs 345 g



Bag **A** contains 8 bananas and bag **B** contains 3 pineapples.

Which bag weighs more and by how much?

Show your working.

Bag _____ weighs ☐ g more than bag _____.

Tuesday 2nd February

Divide 2 digits by 1 digit (1)

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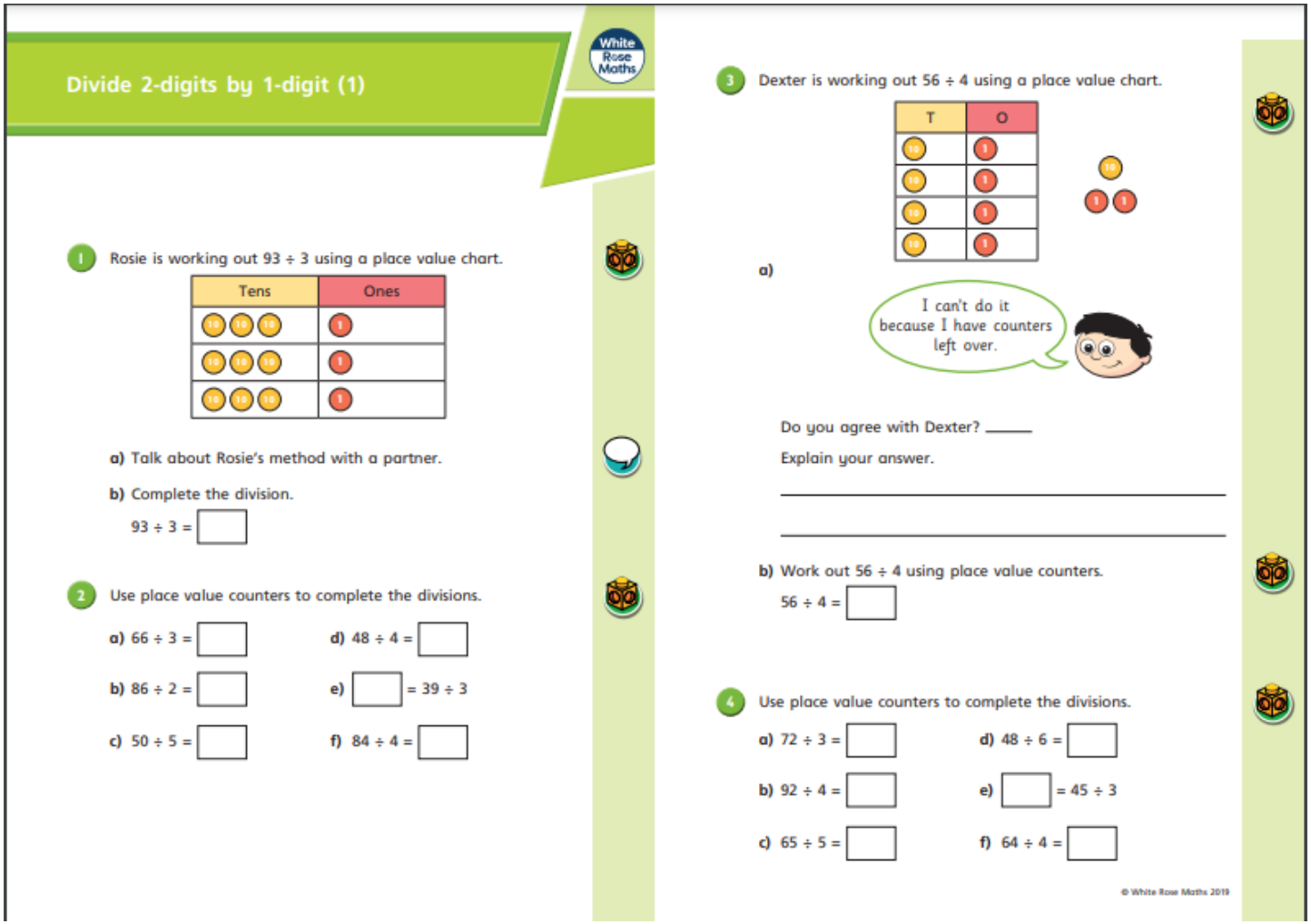


Divide 2-digits by 1-digit (1)

White Rose Maths

1 Rosie is working out 93 ÷ 3 using a place value chart.

Tens	Ones
10 10 10	1
10 10 10	1
10 10 10	1

a) Talk about Rosie's method with a partner.

b) Complete the division.

93 ÷ 3 = ☐

2 Use place value counters to complete the divisions.

a) 66 ÷ 3 = ☐

b) 86 ÷ 2 = ☐

c) 50 ÷ 5 = ☐

d) 48 ÷ 4 = ☐

e) ☐ = 39 ÷ 3

f) 84 ÷ 4 = ☐

3 Dexter is working out 56 ÷ 4 using a place value chart.

T	O
10	1
10	1
10	1
10	1

a)

Do you agree with Dexter? _____

Explain your answer.

_____

_____

b) Work out 56 ÷ 4 using place value counters.

56 ÷ 4 = ☐

4 Use place value counters to complete the divisions.

a) 72 ÷ 3 = ☐

b) 92 ÷ 4 = ☐

c) 65 ÷ 5 = ☐

d) 48 ÷ 6 = ☐

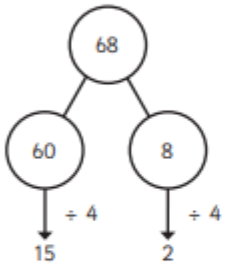
e) ☐ = 45 ÷ 3

f) 64 ÷ 4 = ☐

5 Teddy is working out 57 ÷ 3

How does Teddy know this? Talk about it with a partner.

6 Amir is working out 68 ÷ 4

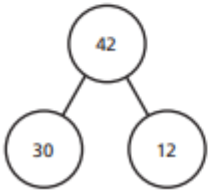


68 ÷ 4 = 17

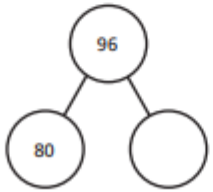
Talk about Amir's method with a partner.

7 Use Amir's method to complete these calculations.

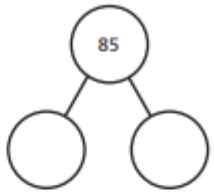
a) 42 ÷ 3 = ☐



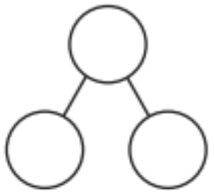
b) 96 ÷ 4 = ☐



c) 85 ÷ 5 = ☐



d) 84 ÷ 6 = ☐



8 Kim has 92 beads.

She wants to share them equally between 4 friends.

How many beads will each friend get?

☐

9 Write <, > or = to make the statements correct.

96 ÷ 8 ◯ 72 ÷ 6

95 ÷ 5 ◯ 63 ÷ 3

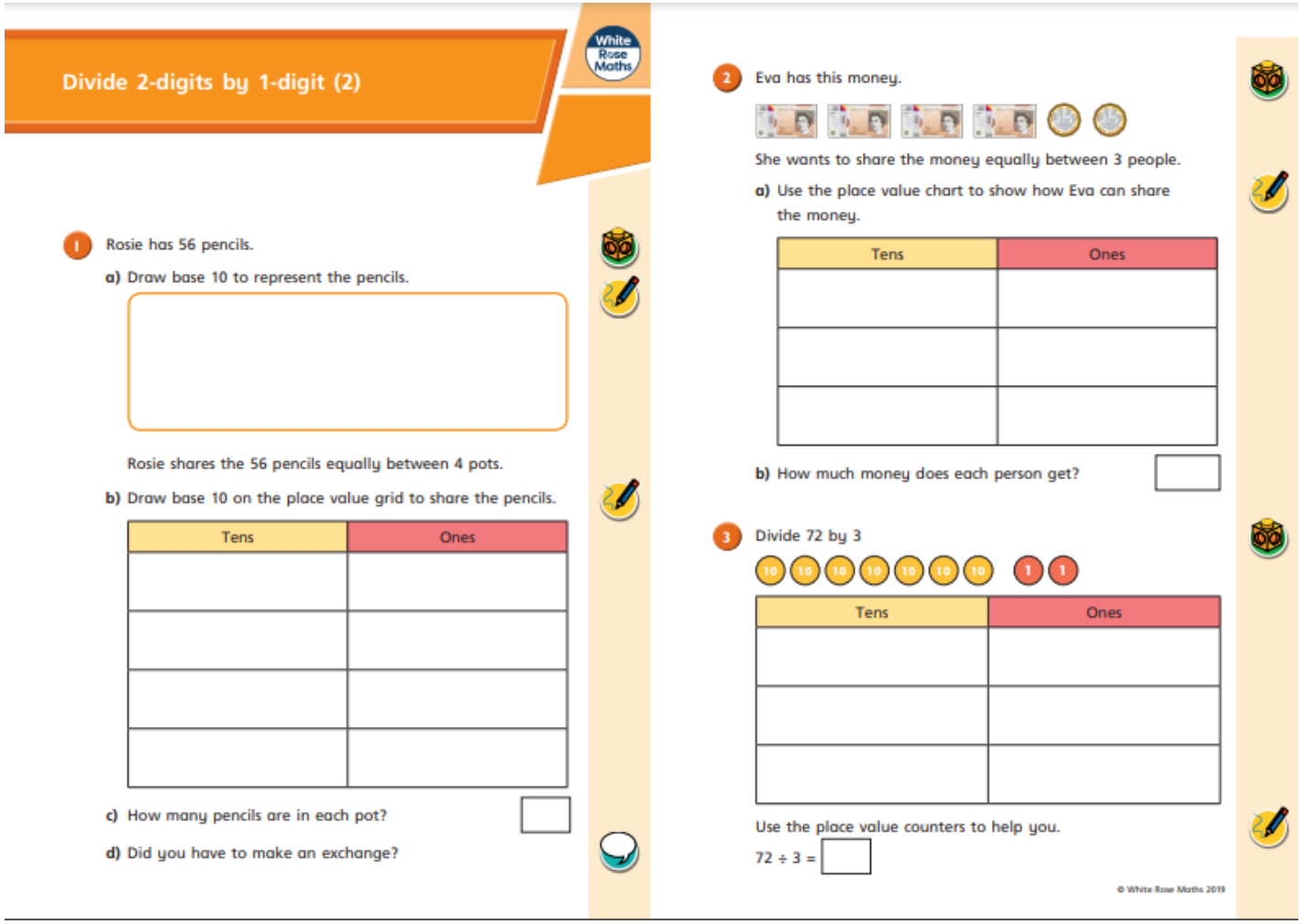
51 ÷ 3 ◯ 64 ÷ 4

98 ÷ 7 ◯ 95 ÷ 5

Wednesday 3rd February

Divide 2 digits by 1 digit (2)

https://vimeo.com/492601



Divide 2-digits by 1-digit (2)

White Rose Maths

1 Rosie has 56 pencils.

a) Draw base 10 to represent the pencils.

Rosie shares the 56 pencils equally between 4 pots.

b) Draw base 10 on the place value grid to share the pencils.

Tens	Ones

c) How many pencils are in each pot? ☐

d) Did you have to make an exchange?

2 Eva has this money.

She wants to share the money equally between 3 people.

a) Use the place value chart to show how Eva can share the money.

Tens	Ones

b) How much money does each person get? ☐

3 Divide 72 by 3

Tens	Ones

Use the place value counters to help you.

72 ÷ 3 = ☐

4 Use base 10 or counters to work out the divisions.

a) 45 ÷ 3 = ☐

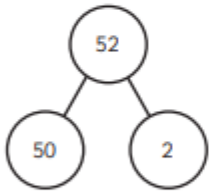
b) 57 ÷ 3 = ☐

c) 92 ÷ 4 = ☐

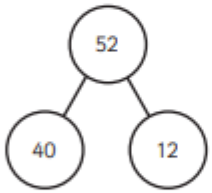
5 Rosie and Tommy are working out 52 ÷ 4

They both use a part-whole model.

Rosie



Tommy



a) Whose part-whole model will help them with the division?

_____

How do you know?

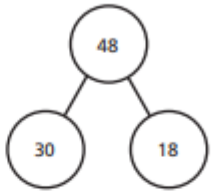
_____

_____

b) Use a part-whole model to work out 52 ÷ 4 ☐

6 Use the part-whole models to complete the divisions.

a) 48 ÷ 3 = ☐

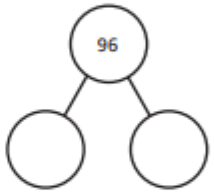


30 ÷ 3 = ☐

18 ÷ 3 = ☐

48 ÷ 3 = ☐

b) 96 ÷ 4 = ☐



c) 65 ÷ 5 = ☐

d) 75 ÷ 3 = ☐

7 Here are 3 divisions.

96 ÷ 8	96 ÷ 4	96 ÷ 2

a) What is the same about the questions? What is different?

b) Complete the divisions.

96 ÷ 8 = ☐ 96 ÷ 4 = ☐ 96 ÷ 2 = ☐

c) What do you notice? Talk about it with a partner.

Thursday 4th February

Divide 2 digits by 1 digit (3)

https://vimeo.com/497601665

Divide 2-digits by 1-digit (3)

1 Mo has these lolly sticks.

He uses them to make squares.

How many squares can Mo make?

Complete the sentences.

There are 17 lolly sticks.

There are ☐ groups of 4

There is ☐ lolly stick remaining.

17 ÷ 4 = ☐ remainder ☐

Mo can make ☐ squares.

2 Mo now uses the lolly sticks to make triangles.

How many triangles can Mo make?

Complete the sentences.

There are 17 lolly sticks.

There are ☐ groups of 3

There are ☐ lolly sticks remaining.

17 ÷ 3 = ☐ remainder ☐

Mo can make ☐ triangles.

3 Finally, Mo uses the lolly sticks to make pentagons.

How many pentagons can Mo make?

Complete the sentences.

There are 17 lolly sticks.

There are ☐ groups of 5

There are ☐ lolly sticks remaining.

17 ÷ 5 = ☐ remainder ☐

Mo can make ☐ pentagons.

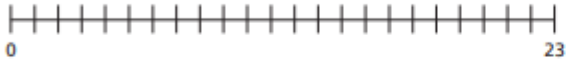
4 Use repeated subtraction to complete the divisions.

Use the number lines to help you.

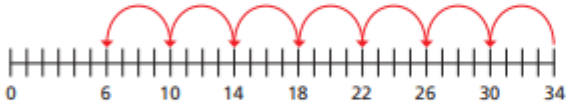
a) 23 ÷ 4 = ☐ remainder ☐

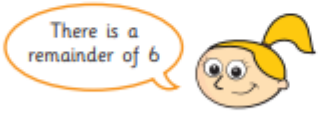
b) 23 ÷ 5 = ☐ remainder ☐

c) 23 ÷ 3 = ☐ remainder ☐



5 Eva works out 34 ÷ 4





Is Eva correct? _____

How do you know?

6 Complete the calculations.

a) 29 ÷ ☐ = 4 remainder 5

b) 29 ÷ ☐ = 4 remainder 1

c) 29 ÷ ☐ = 14 remainder 1

7 How do you know there is no remainder when 75 is divided by 5?

_____

Without doing the division, what is the remainder when 76 is divided by 5? ☐

8 Use place value counters and a place value chart to work out the divisions.

a) 87 ÷ 4 = ☐ remainder ☐

b) 77 ÷ 3 = ☐ remainder ☐

c) 74 ÷ 5 = ☐ remainder ☐

9 Teddy has fewer than 60 marbles but more than 40

When he shares them equally into 3 pots he has no remainders.

When he shares them equally into 4 pots he has remainder 3

When he shares them equally into 5 pots he has remainder 1

How many marbles could Teddy have?

☐

Friday 5th February

Divide 3 digits by 1 digit

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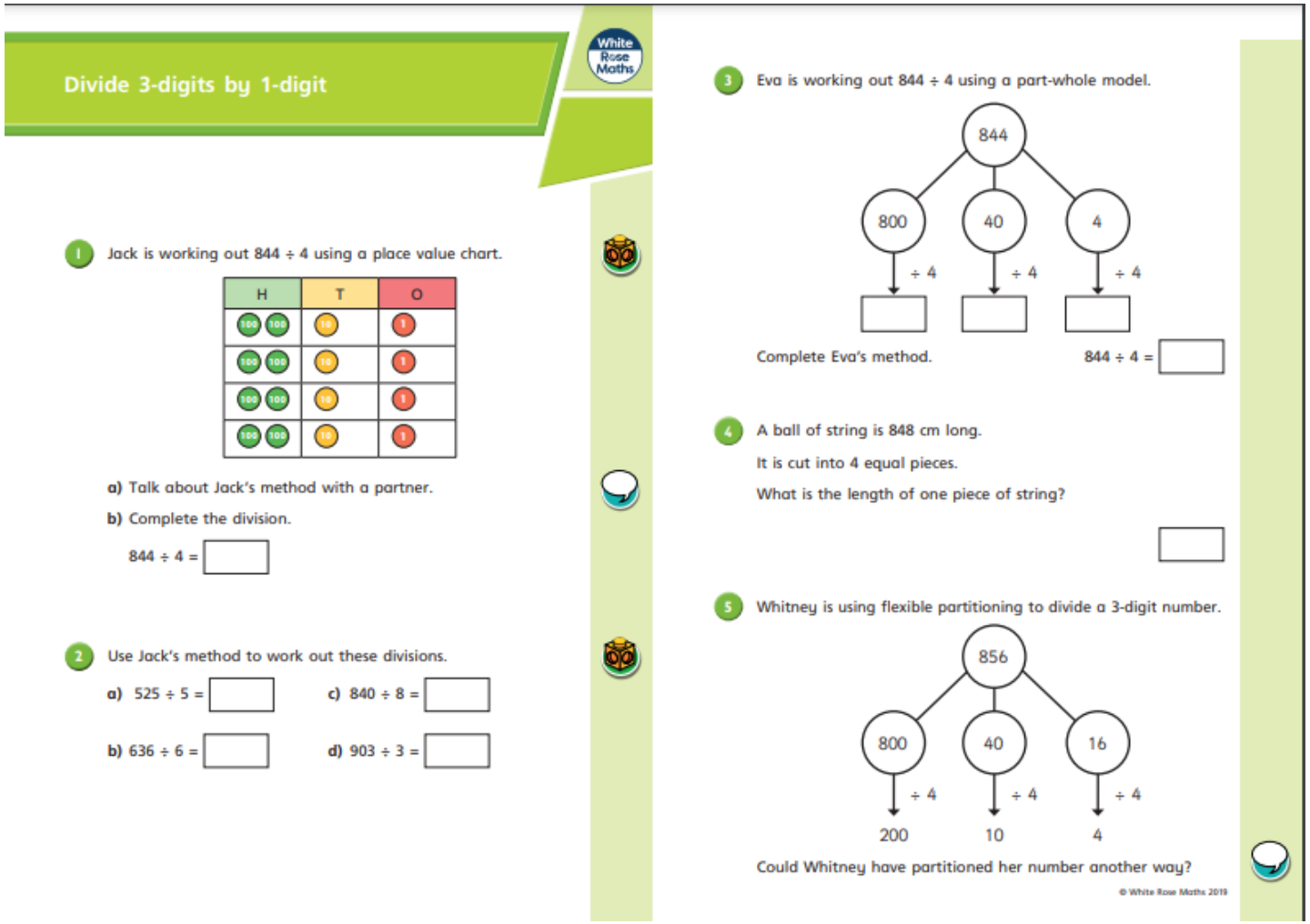


Divide 3-digits by 1-digit

White Rose Maths

1 Jack is working out 844 ÷ 4 using a place value chart.

H	T	O
100 100	10	1
100 100	10	1
100 100	10	1
100 100	10	1

a) Talk about Jack's method with a partner.

b) Complete the division.

844 ÷ 4 = ☐

2 Use Jack's method to work out these divisions.

a) 525 ÷ 5 = ☐

b) 636 ÷ 6 = ☐

c) 840 ÷ 8 = ☐

d) 903 ÷ 3 = ☐

3 Eva is working out 844 ÷ 4 using a part-whole model.

Complete Eva's method.

844 ÷ 4 = ☐

4 A ball of string is 848 cm long.

It is cut into 4 equal pieces.

What is the length of one piece of string?

☐

5 Whitney is using flexible partitioning to divide a 3-digit number.

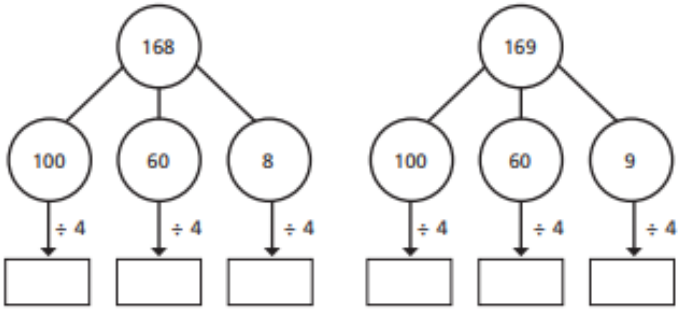
Could Whitney have partitioned her number another way?

Use Whitney's method to work out these divisions.

a) 585 ÷ 5 = ☐ **c)** 648 ÷ 4 = ☐

b) 672 ÷ 6 = ☐ **d)** 847 ÷ 7 = ☐

6 Complete the part-whole models and divisions.



168 ÷ 4 = ☐ 169 ÷ 4 = ☐

What is the same and what is different about the calculations?

Talk about it with a partner.

7 Complete the divisions.

a) 258 ÷ 6 = ☐ **c)** 864 ÷ 4 = ☐

b) 623 ÷ 5 = ☐ **d)** 824 ÷ 3 = ☐

8 Eva has a piece of ribbon.

The ribbon measures 839 cm long.

How much ribbon would be left over if she cuts it into:

a) 4 equal pieces

☐

b) 6 equal pieces

☐

c) 8 equal pieces

☐

Can Eva cut the ribbon into equal pieces with no ribbon left over? _____

Explain your answer.

9 Use 15 counters and a place value chart.

a) Can you make a number that is divisible by 3? _____

b) Can you make a number that has a remainder of 1 when divided by 3? _____

c) Can you make a number that has a remainder of 2 when divided by 3? _____

What do you notice? Talk about your findings with a partner.