Maths for week beginning 11th January

Please complete the daily work and send a copy/picture to your teacher.

5L Miss Langoo at elangoo@kingsavenue.lambeth.sch.uk

4/5/W Mrs Williams (formally Duke) at iduke@kingsavenue.lambeth.sch.uk

Monday

1×	2×	3×	4×	5×
1 × 1 = 1	2 × 1 = 2	3 × 1 = 3	4 × 1 = 4	5 × 1 = 5
1 × 2 = 2	$2 \times 2 = 4$	3 × 2 = 6	4 × 2 = 8	5 × 2 = 10
1 × 3 = 3	$2 \times 3 = 6$	3 × 3 = 9	4 × 3 = 12	5 × 3 = 45
1 × 4 = 4	2 × 4 = 8	3 × 4 = 12	4 × 4 = 16	5 × 4 = 20
1 × 5 = 5	2 × 5 = 40	3 × 5 = 45	4 × 5 = 20	5 × 5 = 25
1 × 6 = 6	2 × 6 = 12	3 × 6 = 18	4 × 6 = 24	5 × 6 = 30
1 × 7 = 7	2 × 7 = 14	3 x 7 = 21	4 × 7 = 28	5 x 7 = 35
1 × 8 = 8	2 × 8 = 16	3 × 8 = 24	4 × 8 = 32	5 × 8 = 40
1 × 9 = 9	2 × 9 = 18	3 × 9 = 27	4 × 9 = 36	5 × 9 = 45
1 × 10 = 10	2 × 10 = 20	3 × 40 = 30	4 × 10 = 40	5 × 10 = 50
6×	7×	8×	9×	10×
6 × 1 = 6	7 × 1 = 7	8 × 1 = 8	9 × 1 = 9	10 × 1 = 10
6 × 2 = 12	7 × 2 = 14	8 × 2 = 16	9 × 2 = 18	10 × 2 = 20
6 × 3 = 18	7 × 3 = 21	8 × 3 = 24	9 × 3 = 27	40 × 3 = 30
6 × 4 = 24	7 × 4 = 28	8 × 4 = 32	9 × 4 = 36	10 × 4 = 40
6 × 5 = 30	7 × 5 = 35	8 × 5 = 40	9 × 5 = 45	40 × 5 = 50
6 × 6 = 36	7 × 6 = 42	8 × 6 = 48	9 × 6 = 54	10 × 6 = 60
6 × 7 = 42	7 × 7 = 49	8 × 7 = 56	9 × 7 = 63	10 × 7 = 70
6 × 8 = 48	7 × 8 = 56	8 × 8 = 64	9 × 8 = 72	10 × 8 = 80
6 × 9 = 54	7 × 9 = 63	8 × 9 = 72	9 × 9 = 84	10 × 9 = 90
6 × 40 = 60	7 × 40 = 70	8 × 40 = 80	9 × 40 = 90	10 × 10 = 100

January

12 Times tables

 $12 \times 0 = 0$ $12 \times 1 = 12$

 $12 \times 2 = 24$ $12 \times 3 = 36$

 $12 \times 4 = 48$ $12 \times 5 = 60$ $12 \times 6 = 72$ $12 \times 7 = 84$ $12 \times 8 = 96$ $12 \times 9 = 108$

 $12 \times 9 = 108$ $12 \times 10 = 120$ $12 \times 11 = 132$ $12 \times 12 = 144$

Arithmetic

What is the area of a square with a side length of 6 cm?



- 2) What is 24×3 ?
- 3) Find the sum of £1,250 and £3,940
- Write down a 4-digit number with 3 in the hundreds column.

What is the area of a square with a side length of 6 cm? 36 cm²

2) What is 24×3 ? 72

3) Find the sum of £1,250 and £3,940 £5190

4) Write down a 4-digit number with 3 in the hundreds column.

LO: To multiply 4 digits by 2 digits

Home learning video support if needed. Please click on link and watch video.

https://www.youtube.com/watch?v=RVYwunbpMHA



Math Antics - Multi-Digit Multiplication Pt 2

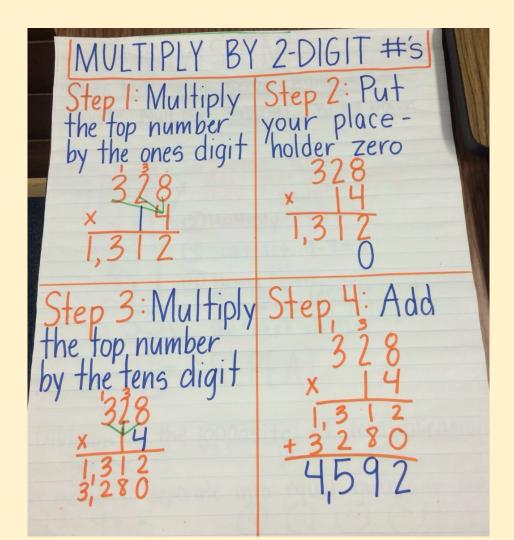
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Subtitles

Strategy





Use <, > or = to make the statements correct.

$4,458 \times 56$	$4,523 \times 54$
4,458 × 55	4,523 × 54
4,458 × 55	4,522 × 54

Mathematical Talk

Explain the steps followed when using this multiplication method.

Look at the numbers in each question, can they help you estimate which answer will be the largest?

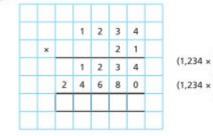
Explain why there is a 9 in the thousands column.

Why do we write the larger number above the smaller number?

What links can you see between these questions? How can you use these to support your answers?

TASK





Tommy is calculating 1,234 x 26

a) Complete his working out.





b) Fill in the grid to check Tommy's working is accurate. You may use place value counters to help.

ı	×	1,000	200	30	4
	20				
ĺ	6				3

Rosie is calculating 2,541 × 4

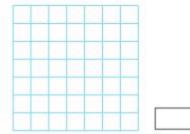
Maths

	2	5	4	1	
×			4	2	
	4,	0	8	2	(2,541 × 2)
	8,	0,	6	4	(2,541 × 40)
1,	2	1.	4	6	

a) Rosie has made two mistakes. What are they?

b) What is the correct answer?

Here is Rosie's working.



Work out the multiplications.

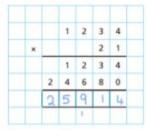
a) 4,28	84 × 2	3					b) 2,142 × 46							

What do you notice?

A machine makes 2,734 boxes every hour.	0 1 2 3 4 5 6
The machine works for 3 hours each day.	
a) How many boxes will it make in 12 days?	×
	a) Using all the digit cards, create 4 different calculations and work out the answer to each.
b) Compare methods with a partner. Were there any other ways you could have worked out the answer? 6 Work out 378 x 7 x 12	b) Write your answers in ascending order.
Show your method clearly.	c) What is the smallest product that can be made?
	8 Amir scores 4,680 points in a computer game for 12 games in a row.
	Whitney scores 2,512 points every game for 24 games.
	Who scores more points?
	How many more?

Answers





a) Complete his working out.



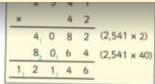
b) Fill in the grid to check Tommy's working is accurate. You may use place value counters to help.

×	1,000	200	30	4
20	20,000	4,000	600	80
6	6,000	1,200	180	24



Rosie is calculating 2,541 × 42

Here is Rosie's working.

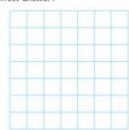


a) Rosie has made two mistakes. What are they?

She hasn't correctly exchanged

She has multiplied by

b) What is the correct answer?



106,722

Work out the multiplications.

a) 4,284 × 23

b) 2,142 × 46

	4	2	8	ų			2	1	4	2	
X			2	3		X			4	6	
1	2	,8	,5	2		1	2	8	5	2	
8	5	6	8	0		8	5	6	8	0	
9	8	5	3	2		9	8	5	3	2	
	-	.1					1	1			

What do you notice?

	Open v	with 🕶
A machine makes 2,734 boxes every hour. The machine works for 3 hours each day.		0 1 2 3 4 5 6
a) How many boxes will it make in 12 days?		×
		a) Using all the digit cards, create 4 different calculations and work out the answer to each. Various answers.
b) Compare methods with a partner. Were there any other ways you could have worked out the answer?	Q	b) Write your answers in ascending order.
Work out 378 × 7 × 12 Show your method clearly.		c) What is the smallest product that can be made? $32,544$
		Amir scores 4,680 points in a computer game for 12 games in a row.
		Whitney scores 2,512 points every game for 24 games. Who scores more points?
31,752		Amir: 56,160 Whitney: 60,288
		How many more?

Thinking Deeper

Can you spot and correct the errors in the calculation?

		2	5	3	4
×				2	3
		17	5	19	2
		15	0	6	8
	1	2	6	6	0

There are 2 errors. In the first line of working, the exchanged ten has not been added. In the second line of working, the place holder is missing. The correct answer should be 58,282

Tuesday

1×	2×	3×	4×	5×
1 × 1 = 1	2 × 1 = 2	3 × 1 = 3	4 × 1 = 4	5 × 1 = 5
1 × 2 = 2	$2 \times 2 = 4$	3 × 2 = 6	4 × 2 = 8	5 × 2 = 10
1 × 3 = 3	$2 \times 3 = 6$	3 × 3 = 9	4 × 3 = 12	5 × 3 = 45
1 × 4 = 4	2 × 4 = 8	3 × 4 = 12	4 × 4 = 16	5 × 4 = 20
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6×	7×	8×	9×	10×
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6 × 4 = 24	7 × 4 = 28	8 × 4 = 32	9 × 4 = 36	10 × 4 = 40
6 × 5 = 30	7 × 5 = 35	8 × 5 = 40	9 × 5 = 45	40 × 5 = 50
6 × 6 = 36	7 × 6 = 42	8 × 6 = 48	9 × 6 = 54	10 × 6 = 60
6 × 7 = 42	7 × 7 = 49	8 × 7 = 56	9 × 7 = 63	10 × 7 = 70
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January

12 Times tables

 $12 \times 0 = 0$ $12 \times 1 = 12$ $12 \times 2 = 24$

5cm 4cm

3) What is 10²?

4) What is 100 more than 9,308?

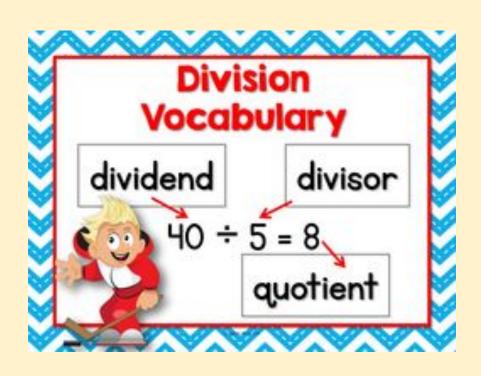
- What is $253 \times 3?$ 759
- Work out the area of the rectangle



3) What is 10^2 ? 100

4) What is 100 more than 9,308? 9408

LO: Divide 2-digits by 1-digit (1)



Please watch video for support https://vimeo.com/488870720



Pivision Strategies

equal groups
$$18 \div 6 = f$$
 $18 \div 6 = 3$

repeated
subtraction
 $18 \cdot 6 = 12$
subtract
 $12 \cdot 6 = 6$
 $13 \cdot 6 = 6$
 1

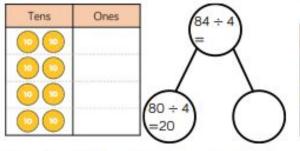


Jack is dividing 84 by 4 using place value counters.

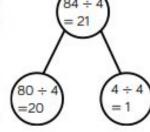


First, he divides the tens.

Then, he divides the ones.



Tens	Ones
00	0
00	0
00	0
00	0



Mathematical Talk

Use Jack's method to calculate:

$$69 \div 3$$

$$88 \div 4$$

$$96 \div 3$$

How can we partition 84? How many rows do we need to share equally between?

If I cannot share the tens equally, what do I need to do? How many ones will I have after exchanging the tens?

If we know $96 \div 4 = 24$, what will $96 \div 8$ be? What will $96 \div 2$ be? Can you spot a pattern?

Dora is calculating 72 ÷ 3
Before she starts, she says the calculation will involve an exchange.

Do you agree? Explain why. Dora is calculating 72 ÷ 3
Before she starts, she says the calculation will involve an exchange.

Do you agree? Explain why.

Dora is correct because 70 is not a multiple of 3 so when you divide 7 tens between 3 groups there will be one remaining which will be exchanged.

TASK



Tens	Ones
000	0
000	0
000	0

- a) Talk about Rosie's method with a partner.
- b) Complete the division.

- Use place value counters to complete the divisions.
 - a) 66 ÷ 3 =

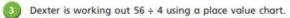
d) 48 ÷ 4 =

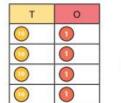
b) 86 ÷ 2 =

e) = 39 ÷ 3

c) 50 ÷ 5 =

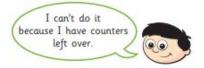
f) 84 ÷ 4 =







a)



Do you agree with Dexter? _____

Explain your answer.

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

- Use place value counters to complete the divisions.
 - a) 72 ÷ 3 =

- d) 48 ÷ 6 =
- **b)** 92 ÷ 4 =
- e) = 45 ÷ 3

c) 65 ÷ 5 =

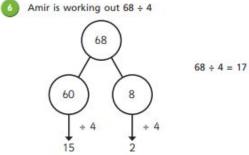
f) 64 ÷ 4 =

Teddy is working out 57 ÷ 3



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

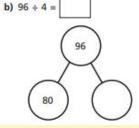




Talk about Amir's method with a partner.

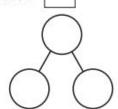
- Use Amir's method to complete these calculations.
 - 42

a) $42 \div 3 =$





d) 84 ÷ 6 =



Kim has 92 beads.

c) 85 ÷ 5 =

She wants to share them equally between 4 friends.

How many beads will each friend get?

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

72 ÷ 6

Answers



Tens	Ones
000	0
000	0
000	0

- a) Talk about Rosie's method with a partner.
- b) Complete the division.

Use place value counters to complete the divisions.

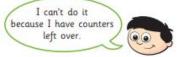








a)



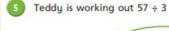
Do you agree with Dexter? No

Explain your answer.

Ha	can	exchange	1 ten	car	10 oneo.	
		J				

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

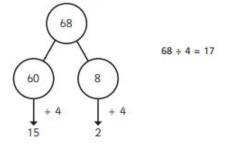






How does Teddy know this? Talk about it with a partner.

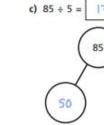


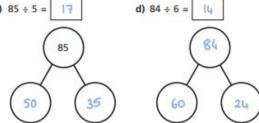


Talk about Amir's method with a partner.

Use Amir's method to complete these calculations.

a)
$$42 \div 3 = 14$$
b) $96 \div 4 = 24$
 96
 30
 12
 80
 16





Kim has 92 beads.

She wants to share them equally between 4 friends.

How many beads will each friend get?

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

23

Wednesday

1×	2×	3×	4×	5×
1 × 1 = 1	2 × 1 = 2	3 × 1 = 3	4 × 1 = 4	5 × 1 = 5
1 × 2 = 2	$2 \times 2 = 4$	3 × 2 = 6	4 × 2 = 8	5 × 2 = 10
1 × 3 = 3	$2 \times 3 = 6$	3 × 3 = 9	4 × 3 = 12	5 × 3 = 45
1 × 4 = 4	2 × 4 = 8	3 × 4 = 12	4 × 4 = 16	5 × 4 = 20
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1 × 7 = 7	2 × 7 = 14	3 x 7 = 21	$4 \times 7 = 28$	5 x 7 = 35
1 × 8 = 8	2 × 8 = 16	3 × 8 = 24	4 × 8 = 32	5 × 8 = 40
1 × 9 = 9	2 × 9 = 48	3 × 9 = 27	4 × 9 = 36	5 × 9 = 45
1 × 10 = 10	2 × 10 = 20	3 × 10 = 30	4 × 10 = 40	5 × 10 = 50
6×	7×	8×	9×	10×
6 × 1 = 6	7 × 1 = 7	8 × 1 = 8	9 × 1 = 9	10 × 1 = 10
6 × 2 = 12	7 × 2 = 14	8 × 2 = 16	9 × 2 = 18	10 × 2 = 20
6 × 3 = 18	7 × 3 = 21	8 × 3 = 24	9 × 3 = 27	40 × 3 = 30
6 × 4 = 24	7 × 4 = 28	8 × 4 = 32	9 × 4 = 36	10 × 4 = 40
6 × 5 = 30	7 × 5 = 35	8 × 5 = 40	9 × 5 = 45	40 × 5 = 50
6 × 6 = 36	7 × 6 = 42	8 × 6 = 48	9 × 6 = 54	10 × 6 = 60
6 × 7 = 42	7 × 7 = 49	8 × 7 = 56	9 × 7 = 63	10 × 7 = 70
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6 × 9 = 54	7 × 9 = 63	8 × 9 = 72	9 × 9 = 84	10 × 9 = 90
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January

12 Times tables

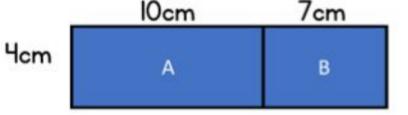
 $12 \times 0 = 0$ $12 \times 1 = 12$ $12 \times 2 = 24$

<u>Arithmetic</u>

- 1) Multiply 374 kg by 6
- 2) What is the area of these two shapes?
- 4cm A B

 Write down 2 factors of 20
- 4) Work out 280 + 849

- Multiply 374 kg by 6
 2,244 kg
- 2) What is the area of these two shapes?



$$A = 40 \text{ cm}^2$$

$$B = 28 \text{ cm}^2$$

3) Write down 2 factors of 20

Any two of I, 2, 4, 5, 10, 20

4) Work out 280 + 849

LO:Divide 2-digits by 1-digit (2)

Watch video for support https://vimeo.com/492054019



Division W/Remainders

· <u>remainder</u> - the amount <u>leftover</u> after creating = groups w/ ÷

Ex. 24-7 = 3.3

Dividend # grosps
Total or how
May in each

SHARE To Find " in each group

20000



Make groups of Divisor To Find - of groups





Teddy is dividing 85 by 4 using place value counters.



First, he divides the tens.

Then, he divides the ones.

Tens	Ones	85	-4	Tens	Ones	8	5 = 4
00] (=)	00	0		21 r1
00			\neg	00	0		\neg
00			\rightarrow	000	0	4	
00		(80 ÷ 4)	(0	$\binom{80 \div 4}{=20}$	$\begin{pmatrix} 5 \div 4 \\ = 1r1 \end{pmatrix}$

Mathematical Talk

Use Teddy's method to calculate:

 $86 \div 4 \quad 87 \div 4$

 $88 \div 4 \quad 97 \div 3 \quad 98 \div 3$

 $99 \div 3$

If we are dividing by 3, what is the highest remainder we can have?

If we are dividing by 4, what is the highest remainder we can have?

Can we make a general rule comparing our divisor (the number we are dividing by) to our remainder?

Problem solving/reasoning

Rosie writes, $85 \div 3 = 28 \text{ r } 1$

She says 85 must be 1 away from a multiple of 3
Do you agree?

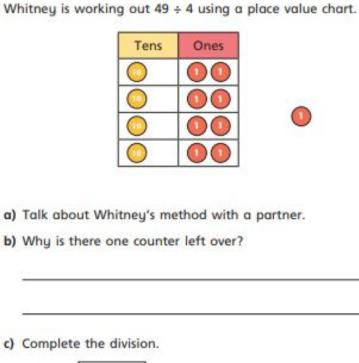
37 sweets are shared between 4 friends. How many sweets are left over?

Four children attempt to solve this problem.

- Alex says it's 1
- Mo says it's 9
- Eva says it's 9 r 1
- Jack says it's 8 r 5

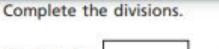
Can you explain who is correct and the mistakes other people have made?

Rosie writes, $85 \div 3 = 28 \text{ r } 1$	I agree, remainder 1 means there is 1 left over. 85 is one	
She says 85 must be 1 away from a multiple of 3 Do you agree?	more than 84 which is a multiple of 3	
37 sweets are shared between 4 friends.	Alex is correct as	
How many sweets are left over?	there will be one remaining sweet.	
Four children attempt to solve this	Mo has found how	
problem.	many sweets each friend will receive.	
 Alex says it's 1 	Eva has written the	
 Mo says it's 9 	answer to the	
 Eva says it's 9 r 1 	calculation.	
 Jack says it's 8 r 5 	Jack has found a remainder that is	
Can you explain who is correct and the	larger than the	
mistakes other people have made?	divisor so is incorrect.	



d) Use place value counters to complete the divisions.
$$50 \div 4 = \boxed{ 51 \div 4 = \boxed{ }}$$

d) Use place value counters to complete the divisions.

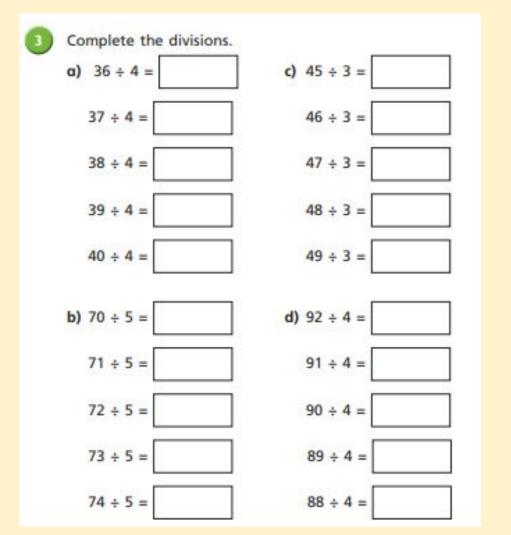


c) 89 ÷ 4 =

d) $32 \div 5 =$

What do you notice?

49 ÷ 4 =



(4)	Dora	has	been	working	out	some	divisions.
				The second secon			



I know without working it out that 76 ÷ 4 must be 18 r4

a) Why does Dora think this?

b)	Explain	why	Dora	is	wrong.	

Eggs come in boxes of 6

Annie has 75 eggs.

She wants to know how many boxes she can fill.

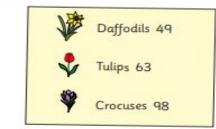
a) Complete the division to work it out.

÷	=	r	ř.
---	---	---	----

- b) What does the remainder represent? Talk about it with a partner.
- c) Complete the sentence.

the property of the second		
Annie can fill	boxes with	eggs left over.

Jack has these bulbs.



Equal numbers of each bulb are put into 4 tubs.

How many of each bulb will be in each tub?

fodils	Tulips	Crocuses	
fodils	Tulips	Crocuses	

How many of each bulb will be left over?

Daffodils	Tulips	Crocuses	
-----------	--------	----------	--

How many tubs could Jack use so that there are no bulbs left over?

Divide 2-digits by 1-digit (2)



Tens	Ones
	00
	00
0	00



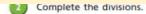
- a) Talk about Whitney's method with a partner.
- b) Why is there one counter left over?

It is a remainder

c) Complete the division.

d) Use place value counters to complete the divisions.

What do you notice?



Complete the divisions.

lur 2

14-3

lurk

22-2



60

-							
4	Dora	has	been	working	out	some	divisions



I know without working it out that 76 + 4 must be 18 r4

a) Why does Dora think this?

She has spotted a pattern

b) Explain why Dora is wrong.

When dividing by 4

Eggs come in boxes of 6
Annie has 75 eggs.

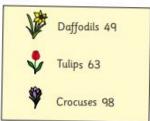


a) Complete the division to work it out.

- b) What does the remainder represent? Talk about it with a partner.
- c) Complete the sentence.

Annie can fill 2 boxes with 3 eggs left over.





Equal numbers of each bulb are put into 4 tubs.

How many of each bulb will be in each tub?



How many of each bulb will be left over?



How many tubs could Jack use so that there are no bulbs left over?

Thursday

1×	2×	3×	4×	5×
1 × 1 = 1	2 × 1 = 2	3 × 1 = 3	4 × 1 = 4	5 × 1 = 5
1 × 2 = 2	2 × 2 = 4	3 × 2 = 6	4 × 2 = 8	5 × 2 = 40
1 × 3 = 3	$2 \times 3 = 6$	3 × 3 = 9	4 × 3 = 12	5 × 3 = 45
1 × 4 = 4	2 × 4 = 8	3 × 4 = 12	4 × 4 = 16	5 × 4 = 20
1 × 5 = 5	2 × 5 = 40	3 × 5 = 45	4 × 5 = 20	5 × 5 = 25
1 × 6 = 6	2 × 6 = 12	3 × 6 = 18	4 × 6 = 24	5 × 6 = 30
1 × 7 = 7	2 × 7 = 14	3 x 7 = 21	4 × 7 = 28	5 × 7 = 35
1 × 8 = 8	2 × 8 = 16	3 × 8 = 24	4 × 8 = 32	5 × 8 = 40
1 × 9 = 9	2 × 9 = 18	3 × 9 = 27	4 × 9 = 36	5 × 9 = 45
1 × 10 = 10	2 × 10 = 20	3 × 40 = 30	4 × 10 = 40	5 × 10 = 50
6×	7×	8×	9×	10×
6 × 1 = 6	7 × 4 = 7	8 × 1 = 8	9 × 1 = 9	10 × 1 = 10
6 × 2 = 12	7 × 2 = 14	8 × 2 = 16	9 × 2 = 18	10 × 2 = 20
6 × 3 = 48	7 × 3 = 21	8 × 3 = 24	9 × 3 = 27	40 × 3 = 30
6 × 4 = 24	7 × 4 = 28	8 × 4 = 32	9 × 4 = 36	10 × 4 = 40
6 × 5 = 30	7 × 5 = 35	8 × 5 = 40	9 × 5 = 45	40 × 5 = 50
6 × 6 = 36	7 × 6 = 42	8 × 6 = 48	9 × 6 = 54	10 × 6 = 60
6 × 7 = 42	7 × 7 = 49	8 × 7 = 56	9 × 7 = 63	10 × 7 = 70
6 × 8 = 48	7 × 8 = 56	8 × 8 = 64	9 × 8 = 72	10 × 8 = 80
6 × 9 = 54	7 × 9 = 63	8 × 9 = 72	9 × 9 = 81	10 × 9 = 90
A THE COURSE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.		8 × 40 = 80	9 × 40 = 90	10 × 10 = 100

January

12 Times tables

$$\begin{array}{rcrrr}
 12 \times 1 & = & 12 \\
 12 \times 2 & = & 24 \\
 12 \times 3 & = & 36 \\
 12 \times 3 & = & 36 \\
 12 \times 4 & = & 48 \\
 12 \times 5 & = & 60 \\
 12 \times 5 & = & 60 \\
 12 \times 6 & = & 72 \\
 12 \times 7 & = & 84 \\
 12 \times 7 & = & 84 \\
 12 \times 8 & = & 96 \\
 12 \times 9 & = & 108 \\
 12 \times 10 & = & 120 \\
 12 \times 11 & = & 132 \\
 12 \times 12 & = & 144 \\
 \end{array}$$

 $12 \times 0 =$

ARITHMETIC

- 1) Multiply 1,305 by 6
- 2) A square has an area of 64 m²
 What is the length of one of its sides?
- Which of these is a prime number?
 IO, II and I5
- 4) Find the sum of 199 and 198

- Multiply I,305 by 6 7,830
- 2) A square has an area of 64 m²
 What is the length of one of its sides? 8 cm

3) Which of these is a prime number? II. 10, II and 15

4) Find the sum of 199 and 198 397

LO: To divide 3 digits by 1 digit

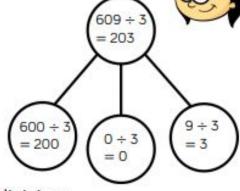
Watch video for support https://vimeo.com/492054040





Annie is dividing 609 by 3 using place value counters.

Hundreds	Tens	Ones
100 100		000
100 100		000
100 100		000



Use Annie's method to calculate the divisions.

$$906 \div 3 \quad 884 \div 4$$

$$884 \div 8$$

$$489 \div 2$$

What is the same and what's different when we are dividing 3digit number by a 1-digit number and a 2-digit number by a 1digit number?

Do we need to partition 609 into three parts or could it just be partitioned into two parts?

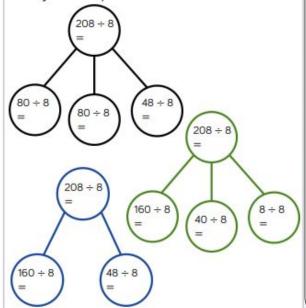
Can we partition the number in more than one way to support dividing more efficiently?

Reasoning and Problem Solving



Dexter is calculating $208 \div 8$ using partwhole models.

Can you complete each model?



How many part-whole models can you make to calculate $132 \div 47$

You have 12 counters and the place value grid. You must use all 12 counters to complete the following.

	Hundreds	Tens	Ones	0000
				0000
I				0000

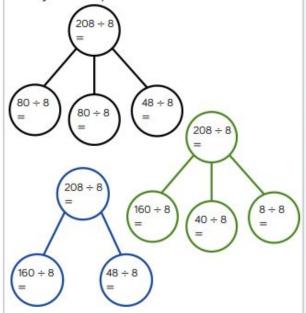
Create a 3-digit number divisible by 2 Create a 3-digit number divisible by 3 Create a 3-digit number divisible by 4 Create a 3-digit number divisible by 5 Can you find a 3-digit number divisible by 6, 7, 8 or 9?

Reasoning and Problem Solving



Dexter is calculating $208 \div 8$ using partwhole models.

Can you complete each model?



How many part-whole models can you make to calculate $132 \div 4$?

 $208 \div 8 = 26$ $80 \div 8 = 10$ $48 \div 8 = 6$ $160 \div 8 = 20$ $40 \div 8 = 5$ $8 \div 8 = 1$

make a range of part-whole models to calculate $132 \div 4$ e.g. $100 \div 4 = 25$ $32 \div 4 = 8$

Children can then

You have 12 counters and the place value grid. You must use all 12 counters to complete the following.

Hundreds	Tens	Ones	0000
			0000
			0000

Create a 3-digit number divisible by 2 Create a 3-digit number divisible by 3 Create a 3-digit number divisible by 4 Create a 3-digit number divisible by 5 Can you find a 3-digit number divisible by 6, 7, 8 or 9?

- 2: Any even number
- 3: Any 3-digit number (as the digits add up to 12, a multiple of 3)
- 4: A number where the last two digits are a multiple of 4
- 5: Any number with 0 or 5 in the ones column.

Possible answers

6: Any even number

7: 714, 8: 840

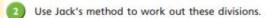
9: Impossible

TASK

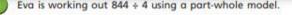


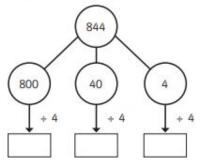
н	Т	0
000	0	0
000	0	0
00	0	0
00	0	0

- a) Talk about Jack's method with a partner.
- b) Complete the division.



- a) 525 ÷ 5 =
- c) 840 ÷ 8 =
- b) 636 ÷ 6 =
- d) 903 ÷ 3 =





Complete Eva's method.

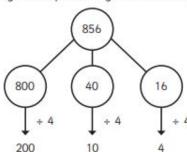
A ball of string is 848 cm long.

It is cut into 4 equal pieces.

What is the length of one piece of string?



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



Could Whitney have partitioned her number another way?

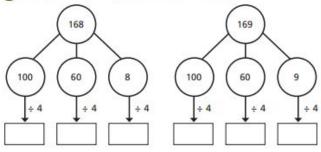


60

Use Whitney's method to work out these divisions.

- a) 585 ÷ 5 =
- c) 648 ÷ 4 =
- b) 672 ÷ 6 =
- d) 847 ÷ 7 =

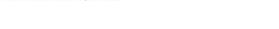
Complete the part-whole models and divisions.



168 ÷ 4 =

169 ÷ 4 =

What is the same and what is different about the calculations? Talk about it with a partner.



Complete the divisions.

- a) 258 ÷ 6 =
- c) 864 ÷ 4 =
- b) 623 ÷ 5 = d) 824 ÷ 3 =



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

AND DESCRIPTION OF THE PARTY OF

c) 8 equal pieces

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

Explain your answer.

- 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.

ANSWERS

White Rose Maths

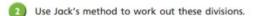
8

60

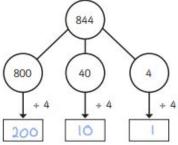
Jack is working out 844 ÷ 4 using a place value chart.

Н	Т	0
00 00	0	0
@ @	0	0
•••••••••••••••••••••••••••••••••••••	0	0
100 000	0	0

- a) Talk about Jack's method with a partner.
- b) Complete the division.



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



Complete Eva's method.

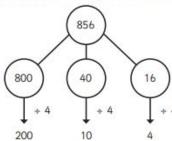
A ball of string is 848 cm long.

It is cut into 4 equal pieces.

What is the length of one piece of string?

212cm

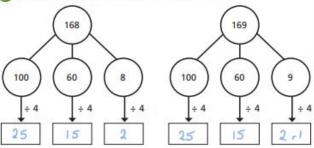
Whitney is using flexible partitioning to divide a 3-digit number.



Could Whitney have partitioned her number another way?

Use Whitney's method to work out these divisions.

Complete the part-whole models and divisions.



168 ÷ 4 = 42 169 ÷ 4 = 42 €1

What is the same and what is different about the calculations? Talk about it with a partner.





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

3 cm

b) 6 equal pieces

5 cm

c) 8 equal pieces

7 cm

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

Yes

Explain your answer. 839 pieces each I on long.

9 Use 15 counters and a place value chart.

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

ues

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

00

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

na

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

Friday

1×	2×	3×	4×	5×
1 × 1 = 1	2 × 1 = 2	3 × 1 = 3	4 × 1 = 4	5 × 1 = 5
1 × 2 = 2	2 × 2 = 4	3 × 2 = 6	4 × 2 = 8	5 × 2 = 40
1 × 3 = 3	$2 \times 3 = 6$	3 × 3 = 9	4 × 3 = 12	5 × 3 = 45
1 × 4 = 4	2 × 4 = 8	3 × 4 = 12	4 × 4 = 16	5 × 4 = 20
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1 × 6 = 6	2 × 6 = 12	3 × 6 = 18	4 × 6 = 24	5 × 6 = 30
1 × 7 = 7	2 × 7 = 14	3 x 7 = 21	4 × 7 = 28	5 × 7 = 35
1 × 8 = 8	2 × 8 = 16	3 × 8 = 24	4 × 8 = 32	5 × 8 = 40
1 × 9 = 9	2 × 9 = 18	3 × 9 = 27	4 × 9 = 36	5 × 9 = 45
1 × 10 = 10	2 × 10 = 20	3 × 40 = 30	4 × 10 = 40	5 × 10 = 50
6×	7×	8×	9×	10×
6 × 1 = 6	7 × 4 = 7	8 × 1 = 8	9 × 1 = 9	10 × 1 = 10
6 × 2 = 12	7 × 2 = 14	8 × 2 = 16	9 × 2 = 18	10 × 2 = 20
6 × 3 = 48	7 × 3 = 21	8 × 3 = 24	9 × 3 = 27	40 × 3 = 30
6 × 4 = 24	7 × 4 = 28	8 × 4 = 32	9 × 4 = 36	10 × 4 = 40
6 × 5 = 30	7 × 5 = 35	8 × 5 = 40	9 × 5 = 45	40 × 5 = 50
6 × 6 = 36	7 × 6 = 42	8 × 6 = 48	9 × 6 = 54	10 × 6 = 60
6 × 7 = 42	7 × 7 = 49	8 × 7 = 56	9 × 7 = 63	10 × 7 = 70
6 × 8 = 48	7 × 8 = 56	8 × 8 = 64	9 × 8 = 72	10 × 8 = 80
6 × 9 = 54	7 × 9 = 63	8 × 9 = 72	9 × 9 = 81	10 × 9 = 90
A THE COURSE OF THE PERSON NAMED IN COLUMN TWO IS NOT THE OWNER.		8 × 40 = 80	9 × 40 = 90	10 × 10 = 100

January

12 Times tables

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 12 \times 3 & = & 36 \\
 12 \times 3 & = & 36 \\
 12 \times 4 & = & 48 \\
 12 \times 5 & = & 60 \\
 12 \times 5 & = & 60 \\
 12 \times 6 & = & 72 \\
 12 \times 7 & = & 84 \\
 12 \times 7 & = & 84 \\
 12 \times 8 & = & 96 \\
 12 \times 9 & = & 108 \\
 12 \times 10 & = & 120 \\
 12 \times 11 & = & 132 \\
 12 \times 12 & = & 144 \\
 \end{array}$$

 $12 \times 0 =$

Arithmetic

Work out $2,713 \times 8$



5 cm

3) What is 5²?

4) Max saves £15. He spends £2.50 on a magazine. How much does he have left?

- 1) Work out $2,713 \times 8$ 21,704
- 2) What is the perimeter of the square?

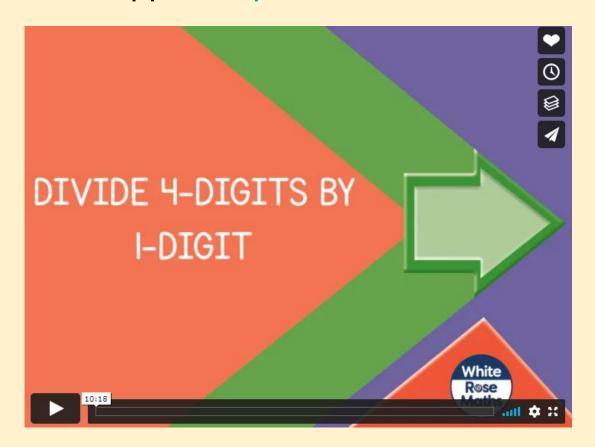


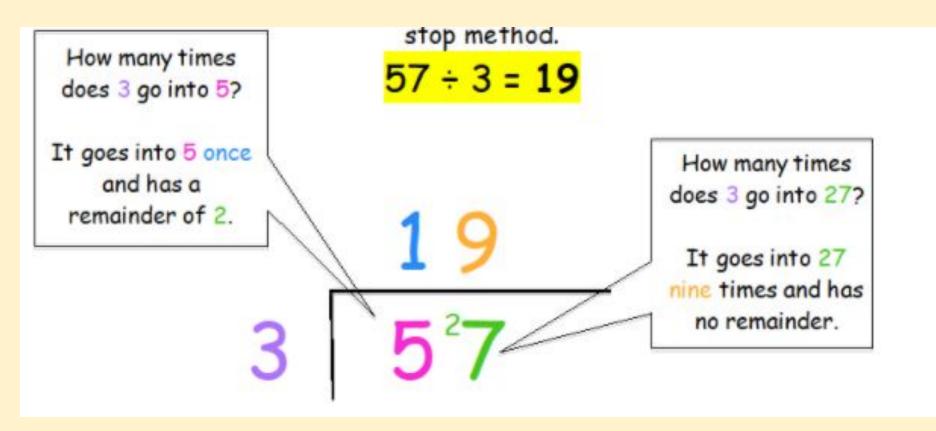
- 3) What is 5^2 ? 25
- 4) Max saves £15. He spends £2.50 on a magazine. How much does he have left? £12.50

LO: To divide 4 digits by 1 digit using

short division (bus stop method)

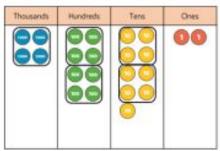
Watch video for support https://vimeo.com/492054136







Here is a method to calculate 4,892 divided by 4 using place value counters and short division.



Thousands	Hundreds	Tens	Ones
00	0000	000	00 00 00 00

	1	2	2	3
4	4	8	9	12

Mathematical Talk

Use this method to calculate:

$$6,610 \div 5$$

$$2,472 \div 3$$

$$9,360 \div 4$$

How many groups of 4 thousands are there in 4 thousands?

How many groups of 4 hundreds are there in 8 hundreds?

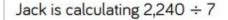
How many groups of 4 tens are there in 9 tens?

What can we do with the remaining ten?

How many groups of 4 ones are there in 12 ones?

Do I need to solve both calculations to compare the divisions?

Reasoning and Problem Solving

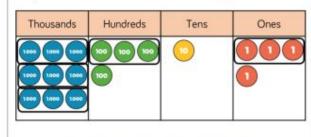


He says you can't do it because 7 is larger than all of the digits in the number.

Do you agree with Jack? Explain your answer.



Explain and correct the working.



	3	1	0	1
3	9	4	1	4

Reasoning and Problem Solving

Jack is calculating $2,240 \div 7$

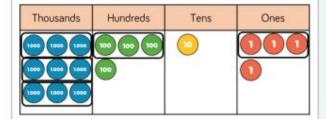
He says you can't do it because 7 is larger than all of the digits in the number.

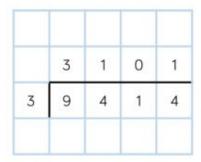
Do you agree with Jack? Explain your answer. Jack is incorrect.
You can exchange between columns.
You can't make a group of 7 thousands out of 2 thousand, but you can make groups of 7 hundreds out of 22 hundreds.

The answer is 320

Spot the Mistake

Explain and correct the working.





There is no exchanging between columns within the calculation.

The final answer should have been 3,138

TASK



 a) Circle the groups of 3 to help you complete the sentences and calculation.



Maths

The first step has been done for you.

Th	н	T	0
	00000		00

	1			
3	3	9	3	6

There is 1 group of 3 thousands.

There are groups of 3 hundreds.

There is group of 3 tens.

There are groups of 3 ones.

b) Use the place value chart to work out 8,404 ÷ 4

Th	н	Т	0

4						
	4	8	4	0	4	
404	÷	ا ـ ه				





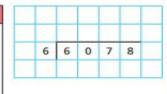
Use the place value charts to work out the divisions.

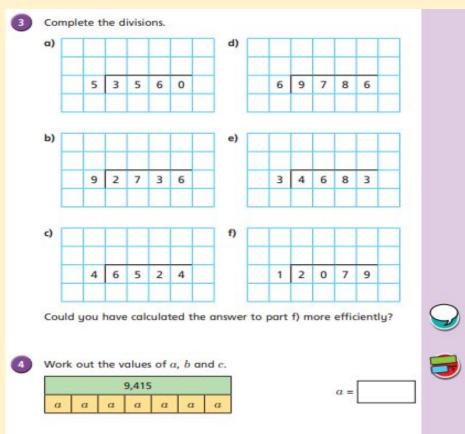
Th	н	Т	0
			00
		00	00
		00	00
		0	
		6	
		6	

\vdash					
2	8	5	3	2	

Th	н	т	0
L			

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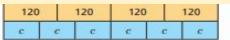


b

5,328

b b b

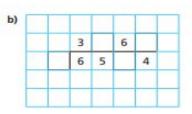
b =



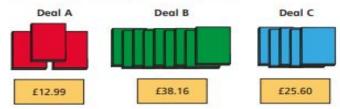
c -	
~~~.	

Find the missing digits.

2 2 1 8 9 6



Books are available to buy in three different deals.



Which is the best deal?

Show your workings.

### **ANSWERS**

Rose Maths

1

 a) Circle the groups of 3 to help you complete the sentences and calculation.

The first step has been done for you.

Th	н	Т	0
	00000		

	1	3	1	2
3	3	9	3	6

There is 1 group of 3 thousands.

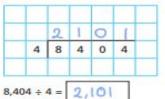
There are 3 groups of 3 hundreds.

There is group of 3 tens.

There are 2 groups of 3 ones.

b) Use the place value chart to work out 8,404 ÷ 4

Th	Н	Т	0
00	00		00
00	00		00
00			
00			





Use the place value charts to work out the divisions.

Th	Н	T	0	
		0-		
	<b>─</b>			L
		0		
		00		
		00		

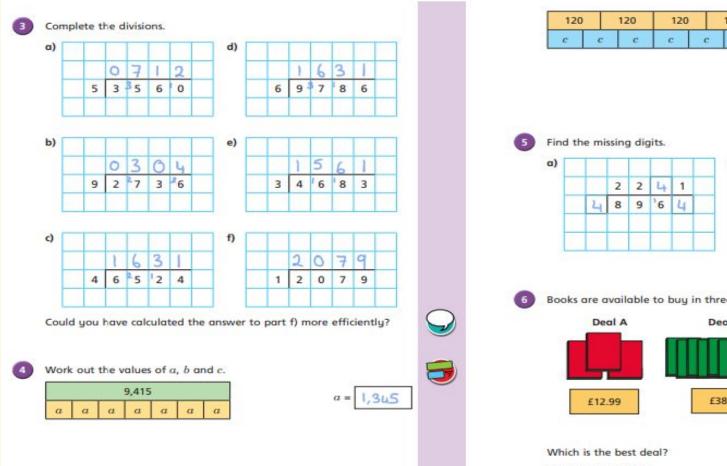
		0		
	4	2	6	6
2	8	5	3	12

Th	н	т	0

	1	3	2	4
4	5	1 2	9	6

Th	н	Т	0

		0	1	13
6	6	0	7	8



666

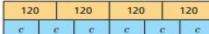
b

b

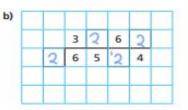
b b

5.328

b b b







Books are available to buy in three different deals.





Show your workings.