

The Written Method for Short Division

Calculate $2944 \div 4$

C) 3×4 makes **12**, which is 2 short of 14. 2 is carried forward.

D) 6 lots of 4 makes **24** exactly, so no remainder is left over.

B) 7 lots of 4 squeeze in to **29**. $7 \times 4 = 28$, which is **1** short of **29**. This remainder is carried forward.



A) We can not squeeze any **4s** in to **2**, so we carry **2** forward in to the next column.

Make a list of the multiples of **4** before you begin.

Remainders carried forward



Can you make a list of top tips to support you with using this method?

Activity 1

Short Division

Calculate using short division.

5	7	2	5
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3	1	9	3	8
---	---	---	---	---

12	6	0	3	6
----	---	---	---	---

$$3,612 \div 14$$

List the multiples of the numbers to help you calculate.



What is different between dividing by 1 digit and 2 digits?

Activity 1

Short Division

Calculate using short division.

	1	4	5
5	7	2	5
		2	2

		6	4	6
3	1	9	3	8
		1	1	1

		5	0	3
12	6	0	3	6
		6		3

		2	5	8
14	3	6	1	2
		3	8	11



Did you remember to list multiples of the divisor before you started?

Activity 2

Short Division

A limousine company allows 14 people per limousine.

How many limousine are needed for 230 people?



If the number does not divide into the ones, what do we do?

Activity 2

Short Division

A limousine company allows 14 people per limousine.

How many limousine are needed for 230 people?

- 1 × 14 = 14 ←
- 2 × 14 = 28
- 3 × 14 = 42
- 4 × 14 = 56
- 5 × 14 = 70
- 6 × 14 = 84 ←
- 7 × 14 = 98
- 8 × 14 = 112
- 9 × 14 = 126
- 10 × 14 = 140

		1	6	r 6
14	2	3	0	

Since there is a remainder left over, you will need one more limousine.

17 limousines are needed for 230 people.

Activity 2

Short Division

A limousine company allows 16 people per limousine.

How many limousine are needed for 280 people?



Activity 2

Short Division

A limousine company allows **16** people per limousine.

How many limousine are needed for **280** people?

		1	7	r 8
16	2	8	0	
		2	12	

- $1 \times 16 = 16$
- $2 \times 16 = 32$
- $3 \times 16 = 48$
- $4 \times 16 = 64$
- $5 \times 16 = 80$
- $6 \times 16 = 96$
- $7 \times 16 = 112$
- $8 \times 16 = 128$
- $9 \times 16 = 144$
- $10 \times 16 = 160$

18 limousines are needed for 280 people.

Activity 2

Short Division

A rollercoaster allows 14 people per ride. There are 133 people in the queue, how many rides will it take for all the people to ride the rollercoaster?



Activity 2

Short Division

A rollercoaster allows **14** people per ride. There are **133** people in the queue, how many rides will it take for all the people to ride the rollercoaster?

$1 \times 14 = 14$

$2 \times 14 = 28$

$3 \times 14 = 42$

$4 \times 14 = 56$

$5 \times 14 = 70$

$6 \times 14 = 84$

$7 \times 14 = 98$

$8 \times 14 = 112$

$9 \times 14 = 126 \leftarrow$

$10 \times 14 = 140$

			9	r 7
14	1	3	3	
		₁	₁₃	

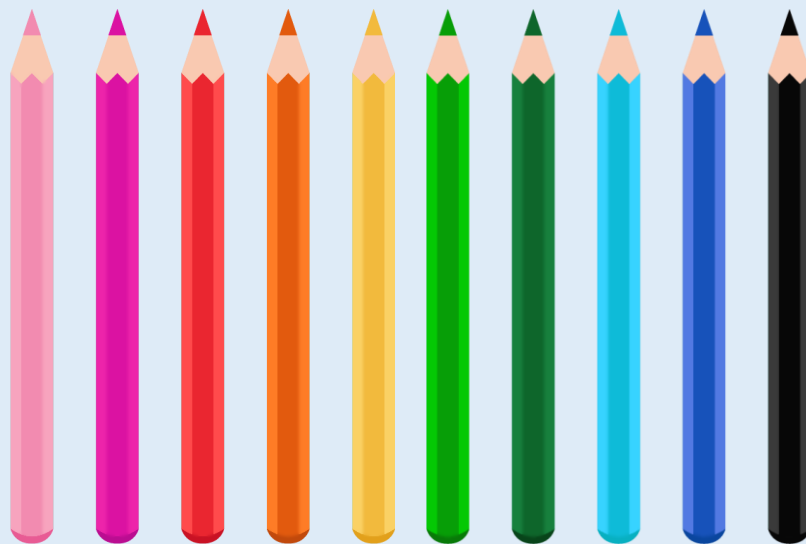
It will take **10** rides for all the people to ride the rollercoaster.



Activity 3

Short Division

Year 6 has 2,356 pencils for the year.
They put them in bundles, with 12 in each bundle.
How many complete bundles can be made?



If the number does not divide into the ones, what do we do?

Activity 3

Short Division

Year 6 has **2,356** pencils for the year.
They put them in bundles, with **12** in each bundle.
How many complete bundles can be made?

		1	9	6	r 4
12	2	3	5	6	
		2	11	7	

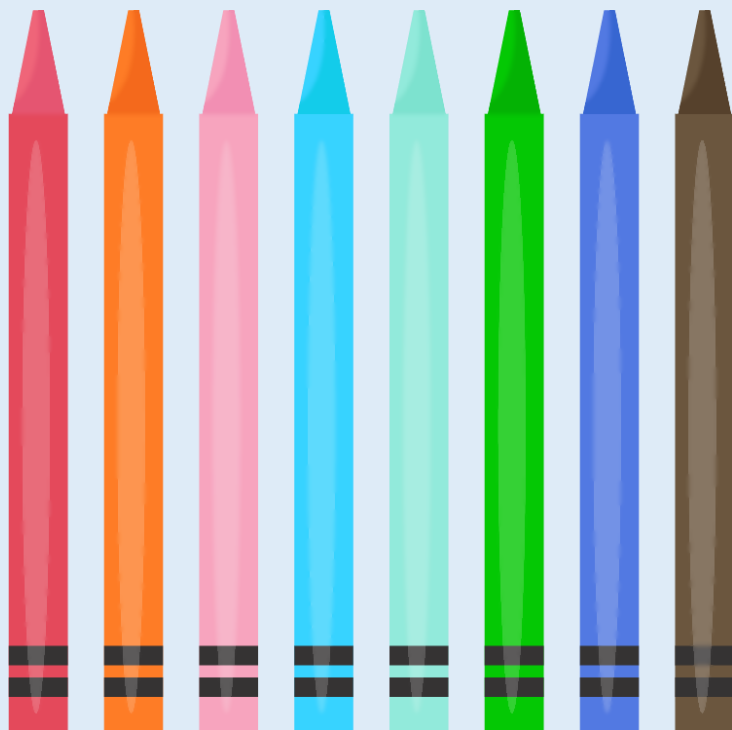
$$\begin{aligned} &\rightarrow 1 \times 12 = 12 \\ &2 \times 12 = 24 \\ &3 \times 12 = 36 \\ &4 \times 12 = 48 \\ &5 \times 12 = 60 \\ &\rightarrow 6 \times 12 = 72 \\ &7 \times 12 = 84 \\ &8 \times 12 = 96 \\ &\rightarrow 9 \times 12 = 108 \\ &10 \times 12 = 120 \end{aligned}$$

Year 6 can make **196** bundles with
4 pencil crayons remaining.

Activity 3

Short Division

Year 6 has 1,328 crayons for the year.
They put them in bundles, with 12 in each bundle.
How many complete bundles can be made?



Activity 3

Short Division

Year 6 has **1,328** crayons for the year.
They put them in bundles, with **12** in each bundle.
How many complete bundles can be made?

		1	1	0	r 8
12	1	₁ 3	₁ 2	8	

→ $1 \times 12 = 12$
 $2 \times 12 = 24$
 $3 \times 12 = 36$
 $4 \times 12 = 48$
 $5 \times 12 = 60$
 $6 \times 12 = 72$
 $7 \times 12 = 84$
 $8 \times 12 = 96$
 $9 \times 12 = 108$
 $10 \times 12 = 120$

Year 6 can make
110 bundles of
colouring pencils
with **8** remaining.

Find the missing digits.

$$\begin{array}{r} 041_ \\ 3 \overline{) 1_45} \end{array}$$



Find the missing digits.

$$\begin{array}{r} 0415 \\ 3 \overline{) 1245} \end{array}$$



Here are two calculation cards.

$$A = 506 \div 11$$

$$B = 845 \div 13$$

Find the difference between A and B.

Here are two calculation cards.

$$A = 506 \div 11$$

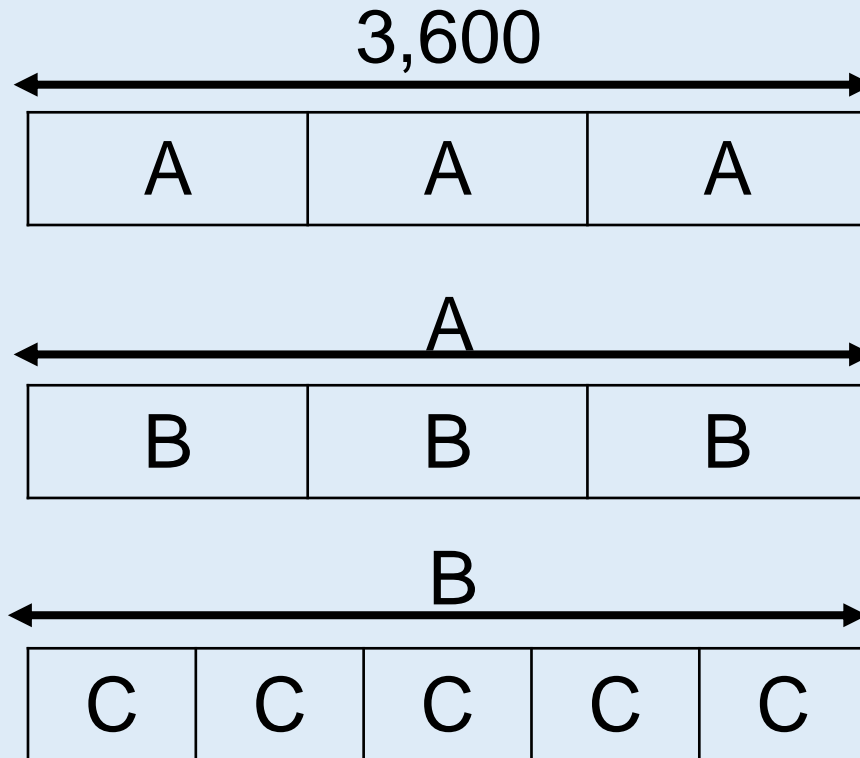
$$B = 845 \div 13$$

$$506 \div 11 = 46$$

$$845 \div 13 = 65$$

$$65 - 46 = 19$$

Work out the value of C.
(The bar models are not drawn to scale)

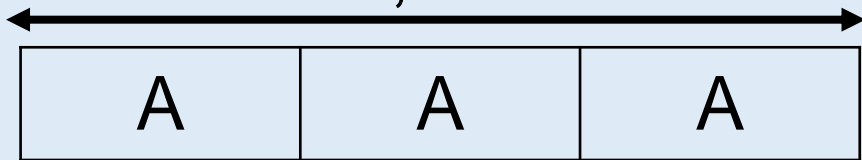


Reasoning - 3

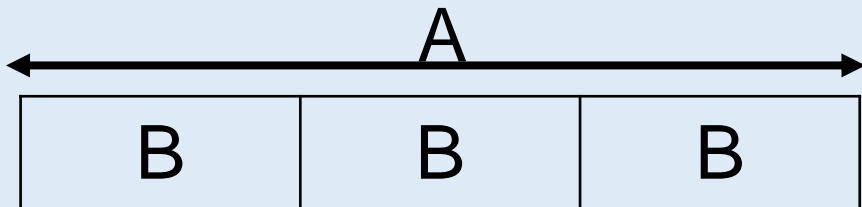
Short Division

Work out the value of C.
(The bar models are not drawn to scale)

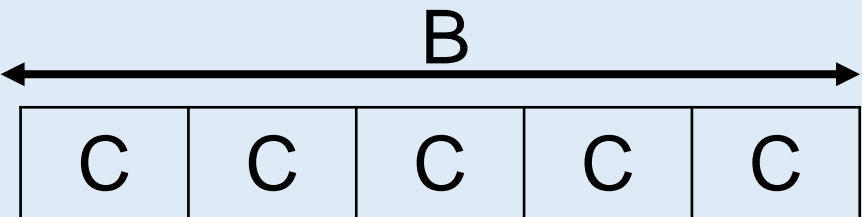
3,600



$$3,600 \div 3 = 1,200$$



$$1,200 \div 3 = 400$$



$$400 \div 5 = 80$$