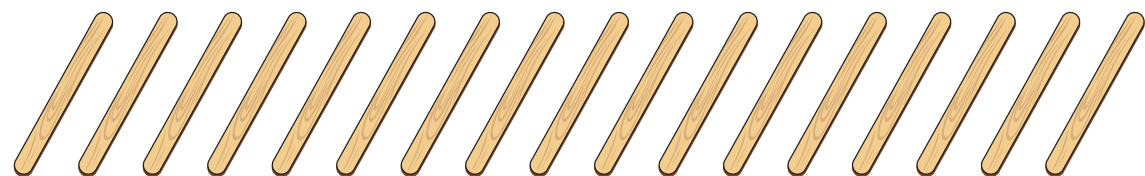
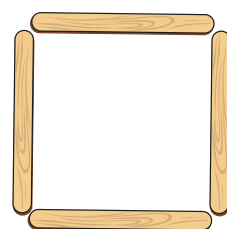


Divide 2-digits by 1-digit (3)

- 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.

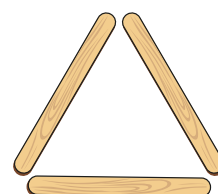
There are groups of 4

There is lolly stick remaining.

$17 \div 4 =$ 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.

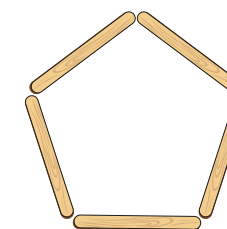
There are groups of 3

There are lolly sticks remaining.

$17 \div 3 =$ 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

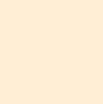
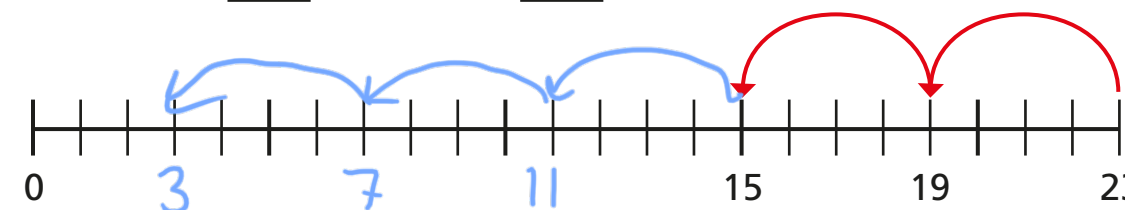
There are lolly sticks remaining.

$17 \div 5 =$ remainder

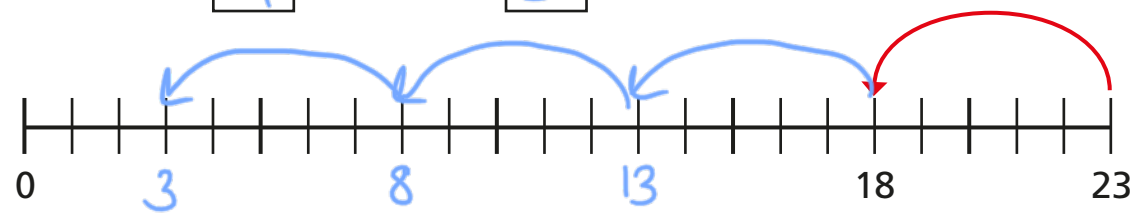
Mo can make pentagons.

- 4 Use repeated subtraction to complete the divisions.
Use the number lines to help you.

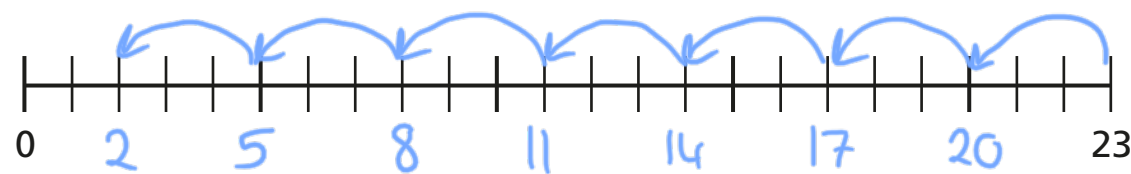
a) $23 \div 4 =$ remainder



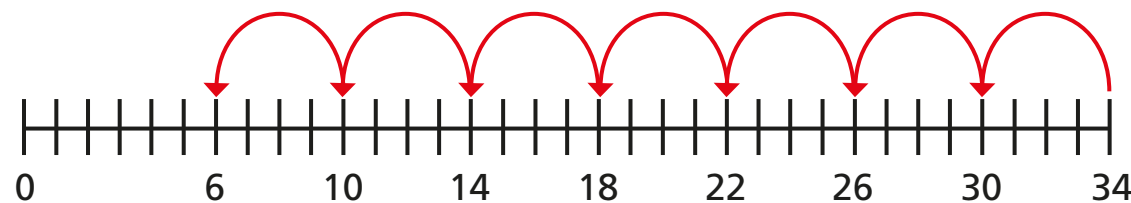
b) $23 \div 5 = \boxed{4}$ remainder $\boxed{3}$



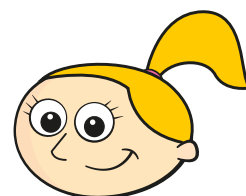
c) $23 \div 3 = \boxed{7}$ remainder $\boxed{2}$



- 5 Eva works out $34 \div 4$



There is a remainder of 6



Is Eva correct? NO

How do you know?

- 6 Complete the calculations.

a) $29 \div \boxed{6} = 4$ remainder 5

c) $29 \div \boxed{2} = 14$ remainder 1

b) $29 \div \boxed{7} = 4$ remainder 1

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

75 has 5 ones so it is in the 5 times table.

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

1

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

a) $87 \div 4 = \boxed{21}$ remainder $\boxed{3}$

b) $77 \div 3 = \boxed{25}$ remainder $\boxed{2}$

c) $74 \div 5 = \boxed{14}$ remainder $\boxed{4}$

- 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?

51



Divide 2-digits by 1-digit (2)

- 1 Whitney is working out $49 \div 4$ using a place value chart.

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

1

- 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.

$$49 \div 4 = 12 \text{ r } 1$$

- d) Use place value counters to complete the divisions.

$$50 \div 4 = 12 \text{ r } 2 \qquad 51 \div 4 = 12 \text{ r } 3$$

What do you notice?

- 2 Complete the divisions.

$$\text{a) } 47 \div 3 = 15 \text{ r } 2$$

$$\text{b) } 26 \div 5 = 5 \text{ r } 1$$

$$\text{c) } 89 \div 4 = 22 \text{ r } 1$$

$$\text{d) } 32 \div 5 = 6 \text{ r } 2$$

$$\text{e) } 49 \div 6 = 8 \text{ r } 1$$

$$\text{f) } 47 \div 4 = 11 \text{ r } 3$$

$$\text{g) } 74 \div 3 = 24 \text{ r } 2$$

$$\text{h) } 81 \div 7 = 11 \text{ r } 4$$

- 3 Complete the divisions.

$$\text{a) } 36 \div 4 = 9$$

$$37 \div 4 = 9 \text{ r } 1$$

$$38 \div 4 = 9 \text{ r } 2$$

$$39 \div 4 = 9 \text{ r } 3$$

$$40 \div 4 = 10$$

$$\text{c) } 45 \div 3 = 15$$

$$46 \div 3 = 15 \text{ r } 1$$

$$47 \div 3 = 15 \text{ r } 2$$

$$48 \div 3 = 16$$

$$49 \div 3 = 16 \text{ r } 1$$

$$\text{b) } 70 \div 5 = 14$$

$$71 \div 5 = 14 \text{ r } 1$$

$$72 \div 5 = 14 \text{ r } 2$$

$$73 \div 5 = 14 \text{ r } 3$$

$$74 \div 5 = 14 \text{ r } 4$$

$$\text{d) } 92 \div 4 = 23$$

$$91 \div 4 = 22 \text{ r } 3$$

$$90 \div 4 = 22 \text{ r } 2$$

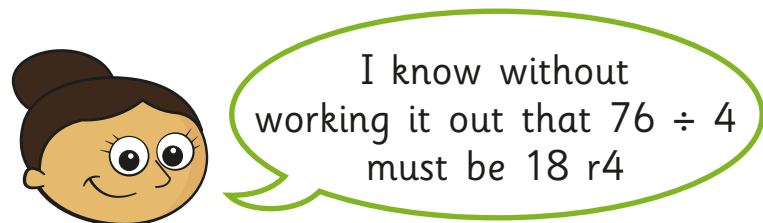
$$89 \div 4 = 22 \text{ r } 1$$

$$88 \div 4 = 22$$



- 4 Dora has been working out some divisions.

$$\begin{array}{l} 72 \div 4 = 18 \\ 73 \div 4 = 18 \text{ r}1 \\ 74 \div 4 = 18 \text{ r}2 \\ 75 \div 4 = 18 \text{ r}3 \end{array}$$



- a) Why does Dora think this?

She has spotted a pattern.

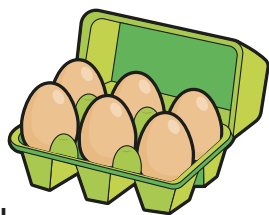
- b) Explain why Dora is wrong.

You can't have a remainder of 4 when dividing by 4

- 5 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.

$$\boxed{75} \div \boxed{6} = \boxed{12} \text{ r } \boxed{3}$$




- b) What does the remainder represent?

Talk about it with a partner.

- c) Complete the sentence.

Annie can fill $\boxed{12}$ boxes with $\boxed{3}$ eggs left over.

- 6 Jack has these bulbs.

	Daffodils 49
	Tulips 63
	Crocuses 98

Equal numbers of each bulb are put into 4 tubs.

How many of each bulb will be in each tub?

Daffodils $\boxed{12}$ Tulips $\boxed{15}$ Crocuses $\boxed{24}$

How many of each bulb will be left over?

Daffodils $\boxed{1}$ Tulips $\boxed{3}$ Crocuses $\boxed{2}$

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

Divide 3-digits by 1-digit



- 1 Jack is working out $844 \div 4$ 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.

$$844 \div 4 = \boxed{211}$$

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

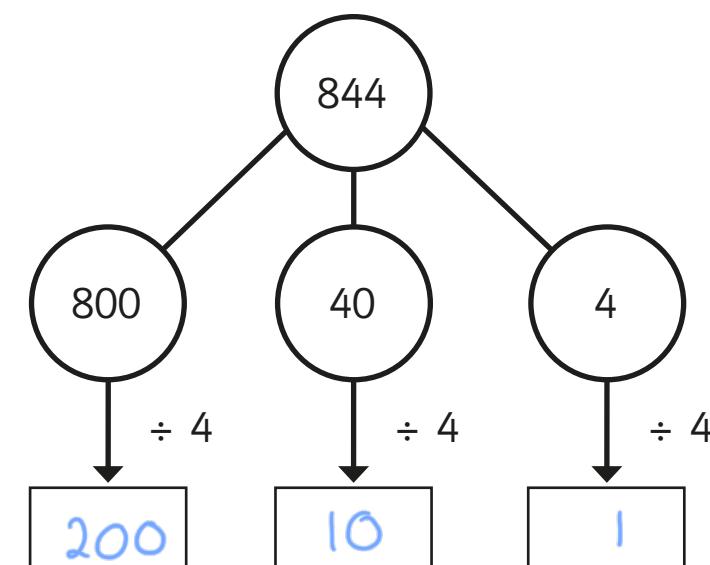
a) $525 \div 5 = \boxed{105}$

c) $840 \div 8 = \boxed{105}$

b) $636 \div 6 = \boxed{106}$

d) $903 \div 3 = \boxed{301}$

- 3 Eva is working out $844 \div 4$ using a part-whole model.



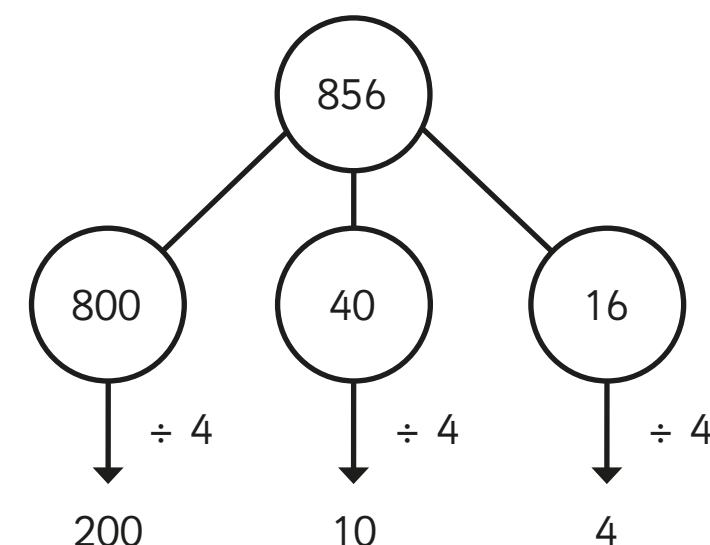
Complete Eva's method.

$$844 \div 4 = \boxed{211}$$

- 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?

$$\boxed{212\text{cm}}$$

- 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) $585 \div 5 =$ 117

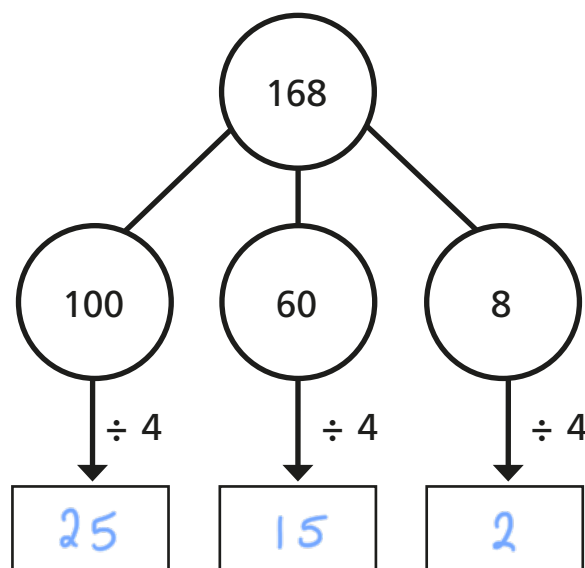
c) $648 \div 4 =$ 162

b) $672 \div 6 =$ 112

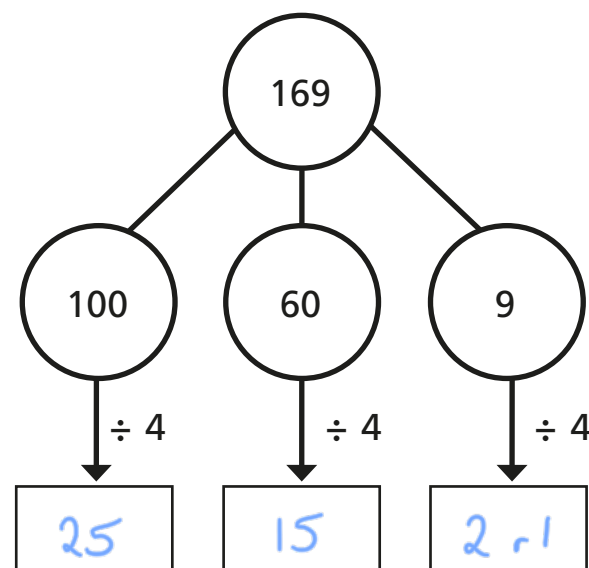
d) $847 \div 7 =$ 121



6 Complete the part-whole models and divisions.



$168 \div 4 =$ 42



$169 \div 4 =$ 42 r 1

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



7 Complete the divisions.

a) $258 \div 6 =$

c) $864 \div 4 =$

b) $623 \div 5 =$

d) $824 \div 3 =$

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

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 1 cm long.*

9

Use 15 counters and a place value chart.

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

yes

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

no

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

no

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



Correspondence problems

- 1 A canteen has 2 types of bread and a choice of 3 sandwich fillings.

Bread	Fillings
white	cheese
brown	tuna
	chicken

- a) List the different sandwiches that can be made.

One has been done for you.

cheese on white

- b) Complete the multiplication to represent the number of different combinations of bread and filling.

$$\square \times \square = \square$$

Complete the sentence.

There are combinations.

- c) How many combinations would there be if there were 4 choices of sandwich filling?

- 2 A pizzeria offers a choice of bases and toppings.

Pizza base	Toppings
deep pan	mushrooms
thin	chicken
	onion
	peppers
	sweetcorn

Complete the multiplication to work out how many different combinations of pizza there are.

$$\square \times \square = \square$$

Complete the sentence.


There are combinations of pizza.

- 3 Mo visits the funfair.

He buys a ticket that allows him to choose 1 ride and 1 game at the fair.

Rides

Big dipper
Dodgems
Carousel



Games

Hook-a-duck
Basketball
Coconut shy
Lucky dip
Test-your-strength

- a)

There are 8 different possible choices of rides and games.



Is Mo correct? _____

Explain your answer.

He has done $3+5$ not 3×5

b) List all the different choices Mo can make.

BH BB BC BL BT

DH DB DC DL DT

CH CB CC CL CT

Mo can make 15 different choices.

4 Aisha has 3 headbands and 5 hair slides.

Kim has 2 headbands and 6 hair slides.

Who has more choices of combinations for wearing one headband and 1 slide?

Aisha has more choices.

Talk about it with a partner.



5 Here are the activity choices available at Summer Camp.

Sport	Arts and crafts	Outward bound
football	painting	wall climbing
tennis	pottery	kayaking
golf	mosaics	abseiling
	origami	

Each child is allowed to choose 3 activities per day:

1 sport, 1 arts and crafts and 1 outward bound.

a) How many activity combinations are there?

36

b) Due to a flooded pitch, football is cancelled.

How many combinations are now possible?

There are 24 combinations.

6 Tom and Esther are building a snowman.

They have a choice of 5 hats, 4 scarves and 2 pairs of gloves to dress their snowman.

How many different combinations are possible?

$$\boxed{5} \times \boxed{4} \times \boxed{2} = \boxed{40}$$

There are 40 combinations.

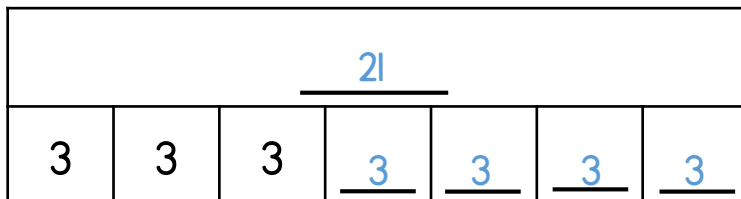


Answers

1 Match each statement to the correct bar model.

6 bags of 10 sweets	10	10	10	10	10	10				
10 bags of 6 sweets	10	10	10	10	10	10	10	10	10	10
10 bags of 10 sweets	6	6	6	6	6	6	6	6	6	6

2 Complete the bar model to show 7×3



3 Each box contains 6 eggs.

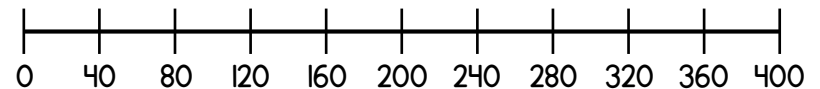


Complete the fact family to represent the eggs.

6	×	7	=	42
7	×	6	=	42
42	÷	7	=	6
42	÷	6	=	7

4 Use the number line to help you work out

$$6 \times 40 = 240$$



5 Complete the calculations.

$$5 \times 30 = 150 \quad 180 \div 2 = 90$$

$$5 \times 300 = 1,500 \quad 630 \div 9 = 70$$



1 mark



1 mark



1 mark

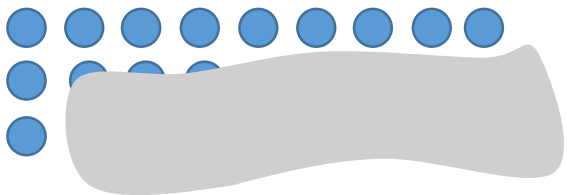


1 mark



3 marks

- 6 Leon makes an array using counters. Part of the array is covered.



Write down a multiplication that the array shows.

Accept either:
 9×3 or 3×9

 \times

How many counters are in the array?

27 counters

- 7 A bag costs £11 and a mug costs £7. Annie spends £80 in total on bags and mugs. She buys 6 bags. How many mugs does she buy?

Award 1 mark for 1 correct step of calculation.

Award 2 marks for a correct answer of 2

2 mugs

- 8 The product of two numbers is 48. The sum of the two numbers is 16. Circle the two numbers.

2 4 6 8 12 24

- 9 What is the value of the triangle?

$$7 \times \triangle = 8 \times \triangle$$

$$\triangle = \underline{0}$$

- 10 A sticker book can fit 6 stickers on each page. 8 out of 20 pages of the book are full. How many **more** stickers are needed to complete the sticker book?

Award 1 mark for 1 correct step of calculation.

Award 2 marks for a correct answer of 72

72 stickers

2 marks

Circle how confident you feel with multiplication & division.

1 2 3 4 5
 Not Very
 confident confident

1 mark

1 mark

2 marks