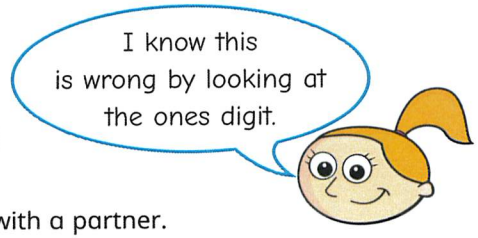
Multiply up to a 4-digit number by a 2-digit number

1 $3{,}257 \times 4 = 13{,}024$



Is Eva correct? Talk about it with a partner.

2 Complete the multiplications.

a)

	1	2	3	5
×			5	3

b)

	4	0	3	6
×			2	4

c)

	6	9	7	8
×			7	6

3 Write the correct multiplications to complete the calculations.

1,247 × 37 **2,031 × 29** **2,413 × 23**

×				
	7	2	3	9
4	8	2	6	0

×				
	8	7	2	9
3	7	4	1	0

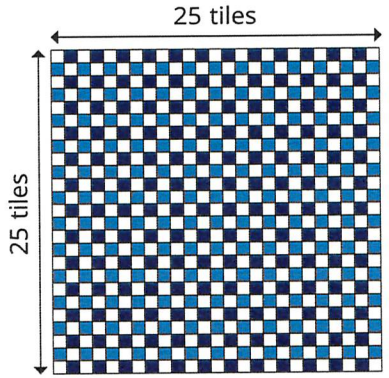
×				
1	8	2	7	9
4	0	6	2	0

4 A car park has 230 rows of 17 spaces.

There are 1,250 cars already parked.

How many empty spaces are there?

5 Mr Smith has tiled his kitchen floor.



Each tile costs 18p.

How much does it cost to tile the floor?

£

6 Here are some digit cards.

1	2	3	6	5

a) Use all the digit cards to make a 3-digit number and a 2-digit number.

Find the product of your numbers.

b) What is the greatest odd product that can be made?

7 Rosie does 37 sit-ups every day for a year.

Annie does 370 sit-ups every day in July.

Who does more sit-ups and by how many?

_____ does more sit-ups.

She does ☐ more sit-ups.

8 This is an activity for two players. You need two different coloured pens or pencils – one for each player.

A	B	C	D	E	F	G	H	I	J

0 100,000

Use any five different digits to complete the multiplication.

☐☐☐ × ☐☐ = ☐☐☐☐

Which letter interval does your answer lie in?

Colour the section on the track above.

Take it in turns with a partner to repeat the steps above.

The winner is the first person to colour three sections in a row.

☐☐☐ × ☐☐ = ☐☐☐☐

☐☐☐ × ☐☐ = ☐☐☐☐

☐☐☐ × ☐☐ = ☐☐☐☐

☐☐☐ × ☐☐ = ☐☐☐☐

☐☐☐ × ☐☐ = ☐☐☐☐

☐☐☐ × ☐☐ = ☐☐☐☐

☐☐☐ × ☐☐ = ☐☐☐☐

☐☐☐ × ☐☐ = ☐☐☐☐

Solve problems with multiplication

1 Use the bar models to work out the multiplications.

a) 342 × 12 = ☐

	× 10	× 2
342	☐	☐

b) 21 × 514 = ☐

	× 10	× 10	× 1
514	☐	☐	☐

c) 202 × 43 = ☐

	× 200	× 2
43	☐	☐

d) A machine can pack 1,010 boxes each day.

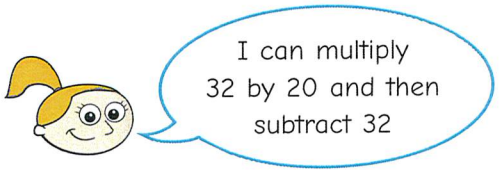
There are 32 machines in a factory.

How many boxes can be packed in one day?

	× 1,000	× 10
32	☐	☐

☐

2 Eva is working out 32 × 19



Use Eva's method to solve the problems.

a) 19 children are going on a school trip on the train.

A train ticket costs £24

What is the total cost of the tickets?

£ ☐

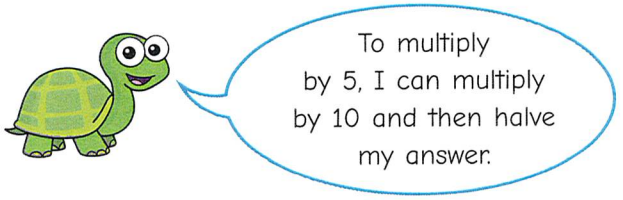
b) A house is 4 m tall.

A skyscraper is 39 times the height of the house.

What is the height of the skyscraper?

☐ m

3



Use Tiny's method to work out the multiplications.

a) 64 × 5 = ☐

c) 126 × 5 = ☐

b) 5 × 286 = ☐

d) 5 × 2,052 = ☐

4 Fill in the missing numbers.

a) $16 \times 6 = 8 \times \square$ so $16 \times 6 = \square$

b) $6 \times 24 = 12 \times \square$ so $6 \times 24 = \square$

c) $36 \times 4 = 12 \times \square$ so $36 \times 4 = \square$

5 Fill in the missing numbers.

Use the factors to help work out the multiplications.

a)

$8 \times 15 = \square$

$8 \times \boxed{5} \times \square$

b)

$6 \times 24 = \square$

$6 \times \square \times \boxed{12}$

c)

$28 \times 3 = \square$

$\boxed{4} \times \square \times 3$

d)

$32 \times 25 = \square$

$\square \times \square \times 25$

6 There are 44 seats on a coach.

How many seats are there on 6 coaches?

Use factors to help you solve the problem.

7 How many different ways can you calculate 32×21?

Compare methods with a partner.

8 A laptop costs £199.99

What is the cost of 3 laptops?

£

9 $\square \times \square = 684$

Complete the multiplication in as many different ways as you can.

Compare answers with a partner.

Short division

1 Work out the divisions mentally.

a) $9 \div 3 =$ ☐

$90 \div 3 =$ ☐

$900 \div 3 =$ ☐

$9{,}000 \div 3 =$ ☐

b) $6 \div 2 =$ ☐

$60 \div 2 =$ ☐

$6{,}000 \div 2 =$ ☐

$6{,}000 \div 3 =$ ☐

2 Complete the divisions.

a)

	3	9	3	6	9

b)

	2	8	0	4	2

c)

	4	8	5	6	4

d)

	5	5	7	0	8	5

e)

	3	7	0	8	2	7

f)

	6	2	4	6	4	2

3 Match the divisions to the remainders.

756 ÷ 4	r0	756 ÷ 2
757 ÷ 4	r1	756 ÷ 3
758 ÷ 4	r2	756 ÷ 4
759 ÷ 4	r3	756 ÷ 5
760 ÷ 4	r4	756 ÷ 6
	r5	

4 Complete the calculations.

a) $637 \div 5 =$ ☐

b) $1{,}036 \div 8 =$ ☐

c) Two thousand divided by eleven is equal to _____

_____

d) $297 \div$ ☐ $= 3$

5 Work out the values of a, b, c and d.

1,386						
a	a	a	a	a	a	a

$a =$ ☐

b	b	b	b	b	b	b	b	b
3,339								

$b =$ ☐

54	54	54	54	54
c		c		c

$c =$ ☐

$72 \times 24 = d \times 6$

$d =$ ☐

6 Farm workers pick 18,451 strawberries over a year.

Strawberries are sold in boxes of 8

How many full boxes can be made?

☐

7 There are 1,136 visitors at a theme park.

A ride can hold 7 people at a time.

How many times will the ride need to go around so that all the visitors go on once?

☐

8 Tommy is thinking of a number between 800 and 900

- He divides the number by 4 and there is a remainder of 1
- He divides the number by 5 and there is a remainder of 1
- He divides the number by 6 and there is a remainder of 1
- He divides the number by 7 and there is a remainder of 1

What is Tommy's number?

☐

9 Work out the missing numbers.

a)

			0	4	8	
		6	☐	☐	☐	

b)

			2	4	8	r1
		4	9	☐	3	

c)

			0	9	1	r7
		☐	7	3	☐	

Introduction to long division

1 Use these multiples of 13 to complete the long divisions.

13	26	39	52	65	78	91	104	117

13 | 2 7 3

13 | 4 4 2

13 | 7 9 3

13 | 8 7 1

2 **a)** Complete the number track with multiples of 23

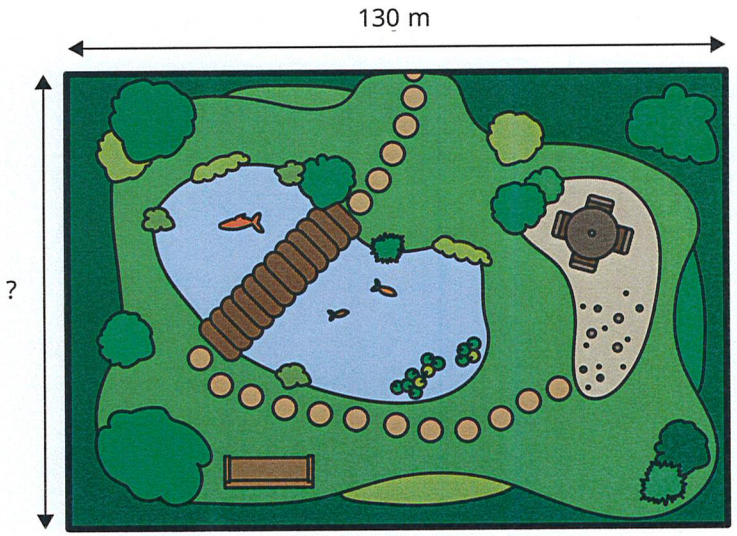
23	46	69						

b) Calculate 943 ÷ 23 = ☐

c) Calculate 345 ÷ 23 = ☐

d) Calculate 621 ÷ 23 = ☐

3



area = 6,500 m²

What is the width of the garden?

4 Tick the cards that give the same answer.

2,730 ÷ 35	2,088 ÷ 24	2,418 ÷ 31

5 Amir is making flags. He sews 19 stars and 31 hearts onto each flag.
He has 589 stars and 899 hearts.

How many flags can Amir complete?

6 **a)** Complete the calculation.

168 × 5 = ☐ × 35

b) Describe two different ways to find the answer to part a).

7 A bag holds 2.375 kg of guinea pig food.

One bag of food needs to last for 19 days.

How much food can the guinea pig have each day?

8 75 = 6,600 ÷ ☆

9,251 ÷ ☾ = 29

Work out the multiplication.

☆ × ☾ = ☐

Create your own problem like this for a partner.

Long division with remainders

1 Complete the number track with the multiples of 15

15									

Use the multiples of 15 to complete the divisions.

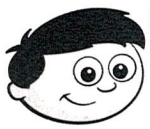
15	7	6	0

15	1	6	3

15	9	4	6

15	7	4	0

2



I am trying to complete this using long division, but it doesn't seem to help.

	0	0	
15	1	3	6
	1	3	6

Look at Dexter's working.

What problem is he facing? Talk about it with a partner.

3 Work out the divisions.

a) 764 ÷ 14

b) 1,840 ÷ 18

4 A school has 380 pupils, 24 staff and 9 governors.

Everyone is invited to a special meal.

Each table seats 12 people.

a) How many tables are needed?

b) How did you work this out?

Did you use the same method as your partner?

5 Tommy needs to buy 650 balloons for a festival.

Party Supplies

Fun Stores

How much would it cost to buy the balloons from each shop?

Party Supplies: ☐ Fun Stores: ☐

6 Ms Lee is printing the school newspaper.

Each newspaper needs 32 sheets of paper.

Paper comes in packets of 250 sheets.

How many newspapers can Ms Lee print with 10 packets of paper?

☐

7 8,200 lorries need to travel across the Channel from Dover to Calais.
The ferry can transport 79 lorries in one journey.

How many journeys will it take to transport all 8,200 lorries?

☐

8 9,890 ÷ ★ = 99 r89 ▲ ÷ ★ = 328 r88

a) What is the value of ★?

★ = ☐

b) What is the value of ▲?

▲ = ☐