

# Contents

<b>Week 1 – Multiplication and division</b>	<b>4</b>
Multiplying a 2-digit number by a 1-digit number	4
Multiplying a 3-digit number by a 1-digit number	8
Dividing a 2-digit number by a 1-digit number	12
Dividing a 3-digit number by a 1-digit number	16
<b>Week 2 – Multiplication and division cont.</b>	<b>20</b>
Solving problems – division	20
<b>Perimeter and area</b>	<b>24</b>
Perimeter of a rectangle	24
Perimeter of rectilinear shapes	28
Counting squares	32
<b>Week 3 – Fractions</b>	<b>36</b>
Tenths and hundredths	36
Equivalent fractions	40
Simplifying fractions	44
Fractions greater than 1	48
<b>Week 4 – Fractions cont.</b>	<b>52</b>
Adding fractions	52
Subtracting fractions	56
Calculating fractions of a quantity	60
Solving problems – fraction of a quantity	64
<b>Week 5 – Decimals</b>	<b>68</b>
Tenths	68
Dividing by 10	72
Hundredths	76
Dividing by 100	80

This tells you which page you need.



<b>Week 6 – Decimals cont.</b>	<b>84</b>
Writing decimals	84
Comparing decimals	88
Ordering decimals	92
Rounding decimals	96
<b>Week 7 – Money</b>	<b>100</b>
Pounds and pence	100
Ordering amounts of money	104
Solving problems – pounds and pence	108
Solving two-step problems	112
<b>Week 8 – Money cont.</b>	<b>116</b>
Solving problems – money	116
Rounding money	120
<b>Statistics</b>	<b>124</b>
Line graphs	124
Charts and tables	128
<b>Week 9 – Geometry – angles and 2D shapes</b>	<b>132</b>
Comparing and ordering angles	132
Identifying regular and irregular shapes	136
Classifying triangles	140
Classifying and comparing quadrilaterals	144
<b>Week 10 – Geometry angles and 2D shapes cont.</b>	<b>148</b>
Lines of symmetry inside a shape	148
Completing a symmetric figure	152
<b>Geometry – position and direction</b>	<b>156</b>
Describing position	156
Drawing on a grid	160
Answers to Practice questions	164

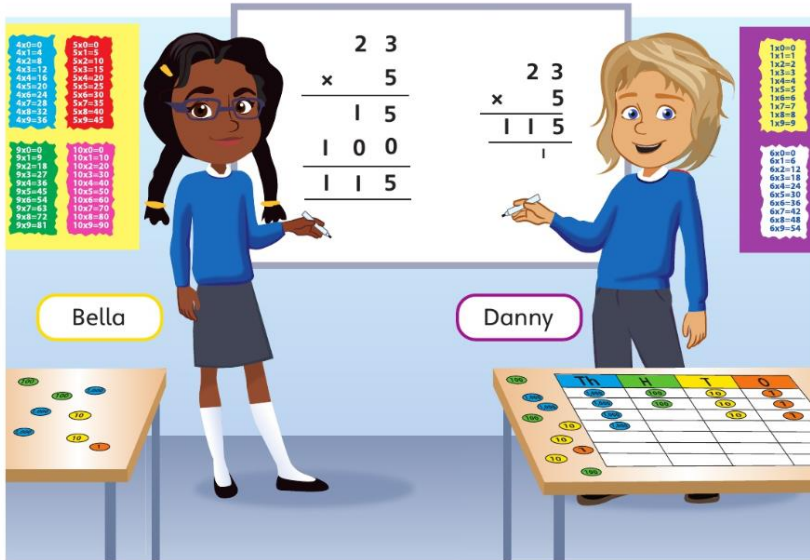
The first page of a lesson is a maths problem. Don't look at the next page until you have had a go! The third and fourth pages give you practice, so you can check your understanding.



# Lesson 1

## Multiplying a 2-digit number by a 1-digit number

### Discover



Bella

Danny

- 1** a) Danny and Bella have used different methods to work out  $23 \times 5$ .  
What is the same and what is different about the two methods?
- b) Use place value counters to show what Danny has done.

### Share

- a) Both methods use columns. Both methods give the same answer. Bella has used long (expanded) multiplication, but Danny has used short (single line) multiplication.

I think Danny has gone wrong. He has missed a step!

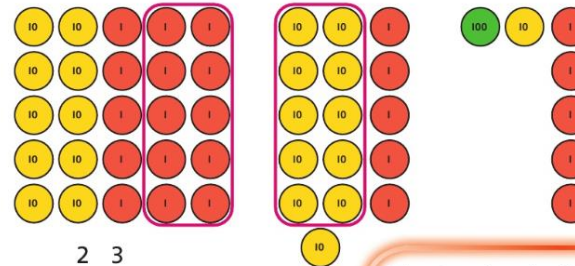


No, I can see what he has done. He has just done it all in one line. It is quicker that way.



- b) This shows the calculation  $23 \times 5$ .

There are 5 rows with 23 in each row.



$$\begin{array}{r} 23 \\ \times 5 \\ \hline 115 \end{array}$$

The 1 under the line represents the extra 10 that is made when an exchange is done.

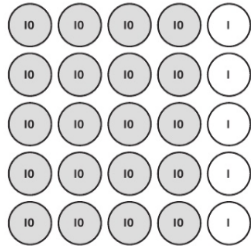


11 tens and 5 ones = 1 hundred, 1 ten and 5 ones  
So,  $23 \times 5 = 115$

# Lesson 1

## Multiplying a 2-digit number by a 1-digit number

1 The place value counters show a multiplication.



Complete the multiplication and then find the answer.

$$\begin{array}{r} 41 \\ \times \quad \quad \\ \hline \end{array}$$

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

2 Fill in the missing numbers.

a)  $\begin{array}{r} 53 \\ \times 6 \\ \hline \end{array}$

c)  $\begin{array}{r} 29 \\ \times 4 \\ \hline \end{array}$

b)  $\begin{array}{r} 47 \\ \times 3 \\ \hline \end{array}$

d)  $\begin{array}{r} 22 \\ \times 8 \\ \hline \end{array}$

I am going to use counters to check my answers.



3 Work out the answers to these multiplications.

a)  $28 \times 5 = \square$

c)  $64 \times 9 = \square$

b)  $37 \times 4 = \square$

d)  $7 \times 32 = \square$



4 Each day Amal travels 54 km to and from work. How many kilometres does he travel in 5 days?



Amal travels  km in 5 days.

5 Lee has made a mistake working out  $54 \times 6$ .



$$\begin{array}{r} 54 \\ \times 6 \\ \hline 3024 \end{array}$$

Thinking about place value columns might help me to explain this mistake.



Explain the mistake Lee has made.

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## Lesson 2

# Multiplying a 3-digit number by a 1-digit number

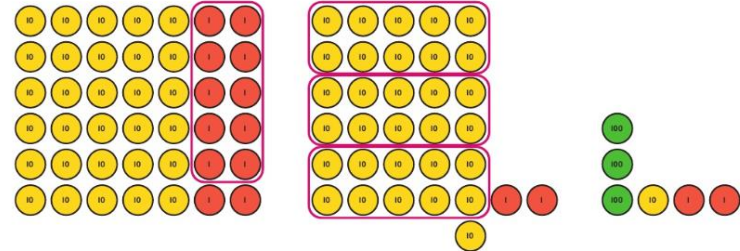
### Discover



- 1** a) There are 6 rows of seats in each section. Each row has 52 seats.  
How many seats are there in a section?
- b) There are 3 sections in the stadium.  
How many seats are there in total?

### Share

- a) There are 6 rows of seats in each section.



$$\begin{array}{r} 52 \\ \times 6 \\ \hline 312 \\ \hline \end{array}$$

I wonder if I could use this method to multiply a 3-digit number by a 1-digit number.



$$6 \times 52 = 312$$

There are 312 seats in a section.

- b) There are 3 sections in the stadium. Each section contains 312 seats.

$$\begin{array}{r} 312 \\ \times 3 \\ \hline 936 \\ \hline \end{array}$$

$$312 \times 3 = 936$$

There are 936 seats in total.

# Lesson 2

## Multiplying a 3-digit number by a 1-digit number

1 The place value counters show a multiplication. Work out the answer to the multiplication.

100	10	10	10	1	1	1	1
100	10	10	10	1	1	1	1

$$\begin{array}{r} 134 \\ \times \quad 2 \\ \hline \end{array}$$

×  =

2 Complete the multiplications.

a) 
$$\begin{array}{r} 213 \\ \times \quad 4 \\ \hline \end{array}$$

d) 
$$\begin{array}{r} 148 \\ \times \quad 3 \\ \hline \end{array}$$

b) 
$$\begin{array}{r} 114 \\ \times \quad 5 \\ \hline \end{array}$$

e) 
$$\begin{array}{r} 252 \\ \times \quad 7 \\ \hline \end{array}$$

c) 
$$\begin{array}{r} 115 \\ \times \quad 4 \\ \hline \end{array}$$

f) 
$$\begin{array}{r} 318 \\ \times \quad 6 \\ \hline \end{array}$$

3 Work out the answers to these multiplications.

a)  $122 \times 6 = \square$

c)  $270 \times 3 = \square$

b)  $215 \times 5 = \square$

d)  $4 \times 624 = \square$

4 Find the missing numbers.

a) 
$$\begin{array}{r} 23 \\ \times \quad 5 \\ \hline 146 \\ \hline \end{array}$$

b) 
$$\begin{array}{r} 516 \\ \times \quad \square \\ \hline \square 12 \\ \hline \end{array}$$

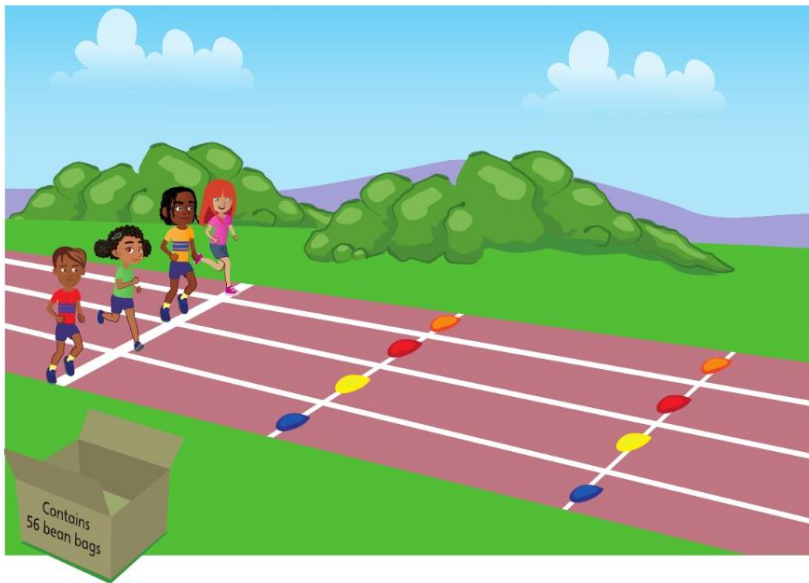
5 A bar of soap weighs 145 g  
How much do 8 of these bars weigh?  
8 bars of soap weigh  g.



## Lesson 3

# Dividing a 2-digit number by a 1-digit number

### Discover



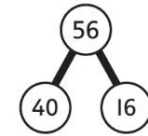
- 1** a) 56 bean bags have been used. There is an equal number of bean bags in each lane. How many bean bags are in each lane?
- b) There is a bean bag every 10 metres in each lane. How far is the furthest bean bag away from the start line?

### Share

- a) There are 56 bean bags altogether.

There are 4 running lanes.

$$56 \div 4 = ?$$



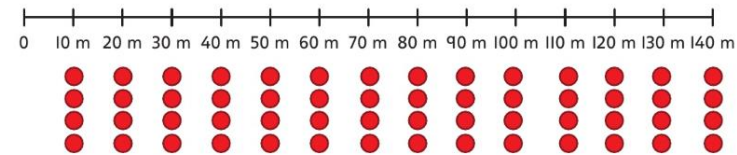
$$40 \div 4 = 10$$

$$16 \div 4 = 4$$

$$\text{So, } 56 \div 4 = 14$$

There are 14 bean bags in each lane.

- b) The first bean bag is 10 metres away from the start line. The bean bags are then 10 metres apart.



There are 14 bean bags in each lane.

There is one bean bag every 10 metres.

$$14 \times 10 = 140$$

The furthest bean bag is 140 metres away from the start line.

I thought the answer was 130 metres. I put the first bean bag at the start.



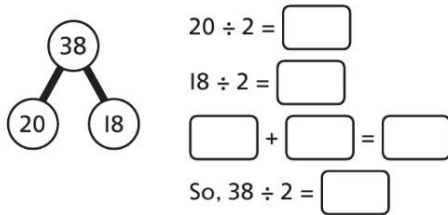
## Lesson 3

### Dividing a 2-digit number by a 1-digit number

- 1 Lexi has 38 cakes.

She shares them between herself and her friend.

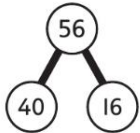
How many cakes do they each get?



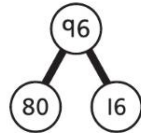
They each get  cakes.

- 2 Work out the following calculations.

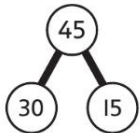
a)  $56 \div 4 = \square$



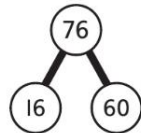
c)  $96 \div 4 = \square$



b)  $45 \div 3 = \square$

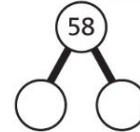


d)  $76 \div 2 = \square$

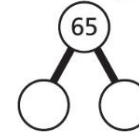


- 3 Partition each number to help you to work out the division.

a)  $58 \div 2 = \square$



b)  $65 \div 5 = \square$



- 4 Find answers to the following calculations.

a)  $48 \div 3 = \square$



c)  $91 \div 7 = \square$



b)  $92 \div 4 = \square$



d)  $85 \div 5 = \square$



- 5 Tilly has 75 bulbs. She plants 3 bulbs in each plant pot.

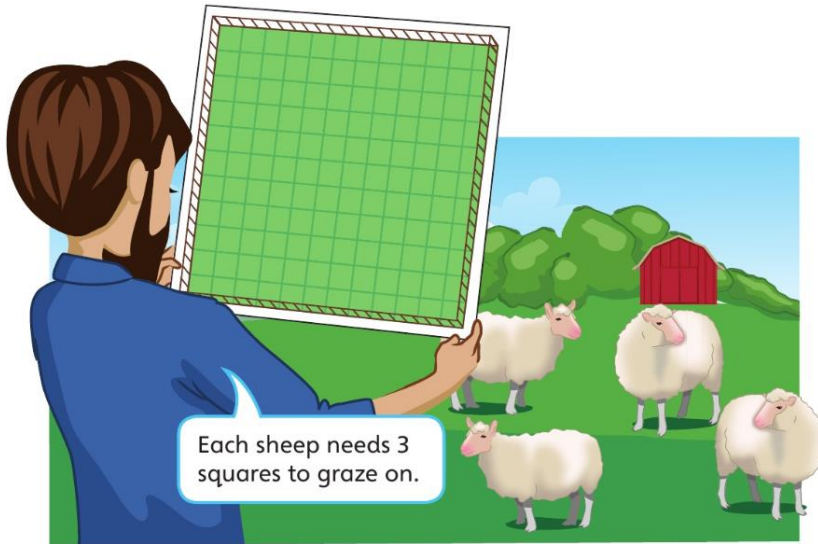
How many plant pots does she need?

Tilly needs  plant pots.



# Dividing a 3-digit number by a 1-digit number

## Discover

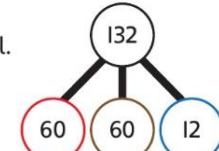
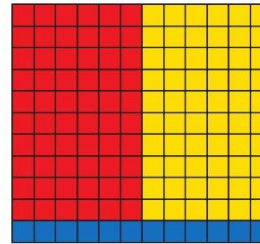


- 1 a) How many sheep can graze in the farmer's field?
- b) A cow needs 4 squares to graze on.  
How many cows can graze in the field?

## Share

a)  $11 \times 12 = 132$

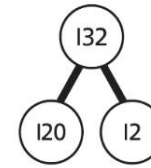
There are 132 squares in total.



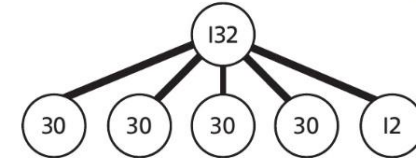
$60 \div 3 = 20$     $60 \div 3 = 20$     $12 \div 3 = 4$   
 $132 \div 3 = 44$

$20 + 20 + 4 = 44$

44 sheep can graze in the farmer's field.



$120 \div 3 = 40$     $12 \div 3 = 4$

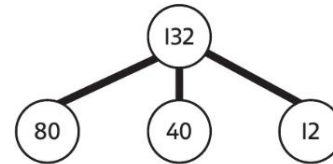


$30 \div 3 = 10$     $30 \div 3 = 10$     $30 \div 3 = 10$     $30 \div 3 = 10$     $12 \div 3 = 4$

I partitioned the number of squares in different ways. I got the same answer each time.



b)



$80 \div 4 = 20$     $40 \div 4 = 10$     $12 \div 4 = 3$   
 $132 \div 4 = 33$

33 cows can graze in the field.

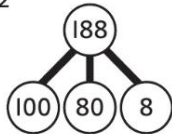


# Lesson 4

## Dividing a 3-digit number by a 1-digit number

1 Work out these calculations using the part-whole models.

a)  $188 \div 2$

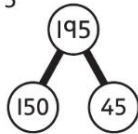


$100 \div 2 = \square$     $80 \div 2 = \square$   
 $8 \div 2 = \square$

$\square + \square + \square = \square$

So,  $188 \div 2 = \square$

c)  $195 \div 5$

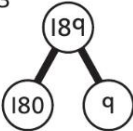


$150 \div 5 = \square$     $45 \div 5 = \square$

$\square + \square = \square$

So,  $195 \div 5 = \square$

b)  $189 \div 3$

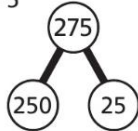


$180 \div 3 = \square$     $9 \div 3 = \square$

$\square + \square = \square$

So,  $189 \div 3 = \square$

d)  $275 \div 5$



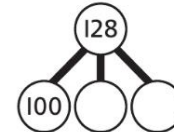
$250 \div 5 = \square$     $25 \div 5 = \square$

$\square + \square = \square$

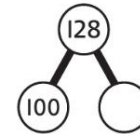
So,  $275 \div 5 = \square$

2 Complete the part-whole models and then complete the divisions.

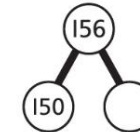
a)  $128 \div 2 = \square$



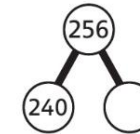
b)  $128 \div 2 = \square$



c)  $156 \div 3 = \square$



d)  $256 \div 4 = \square$



3 Find answers to the following calculations.

a)  $185 \div 5 = \square$



c)  $312 \div 2 = \square$



b)  $264 \div 6 = \square$



d)  $372 \div 3 = \square$

