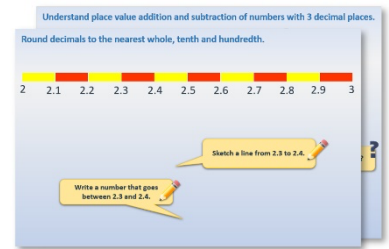


Week 7, Day 2

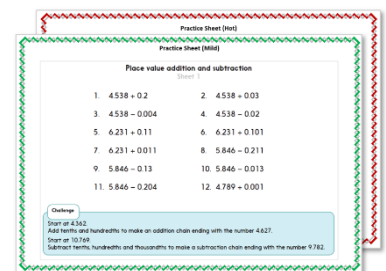
Multiply multiples of 10 and 100 (2)

Each day covers one maths topic. It should take you about 1 hour or just a little more.

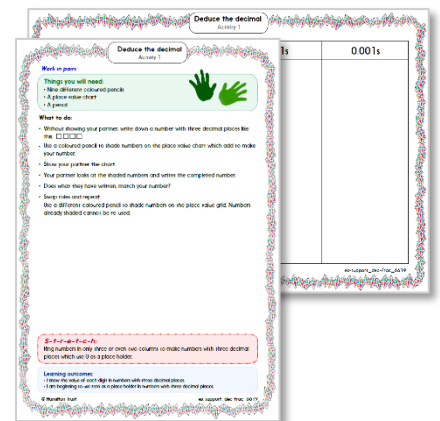
1. Start by reading through the **Learning Reminders**. They come from our *PowerPoint* slides.



2. Tackle the questions on the **Practice Sheet**. There might be a choice of either **Mild** (easier) or **Hot** (harder)! Check the answers.



3. Finding it tricky? That's OK... have a go with a grown-up at **A Bit Stuck?**



4. Think you've cracked it? Whizzed through the Practice Sheets? Have a go at the **Investigation**...

Learning Reminders

Multiply multiples of 10 and 100 by 1-digit numbers using tables facts.

$$3 \times 5 \quad 3 \times 50 \quad 3 \times 500$$

$$3 \times 5 = 15$$

So how can we use that to find 3×50 ?

It's 10 times bigger!

$$3 \times 50 = 3 \times 5 \times 10 = 150.$$

How can we use 3×5 to find 3×500 ?

It's 100 times bigger!

$$3 \times 500 = 3 \times 5 \times 100 = 1500.$$

$$3 \times 5 = 15.$$

$$3 \times 50 = 150.$$

$$3 \times 500 = 1500.$$

Learning Reminders

Multiply multiples of 10 and 100 by 1-digit numbers using tables facts.

$$4 \times 8 \quad 4 \times 80 \quad 4 \times 800$$

$$7 \times 3 \quad 7 \times 30 \quad 7 \times 300$$

Now try these sets of questions.



Compare your answers.
What do you notice?

Once you know $4 \times 8 = 32$
and $7 \times 3 = 21$ you can use
place value to find the
others!

$$7 \times 3 = 21$$
$$7 \times 30 = 210$$
$$7 \times 300 = 2100$$

$$4 \times 8 = 32$$
$$4 \times 80 = 320$$
$$4 \times 800 = 3200$$


Answers

Learning Reminders

Multiply multiples of 10 and 100 by 1-digit numbers using tables facts. Write inverse division sentences.



What is 40×6 ?

If we know $40 \times 6 = 240$
what **division** sentences
can we write? 

We could group 240 into
6s or 40s.

$240 \div 6 = 40$ and $240 \div 40 = 6$.

Practice Sheet Mild

Multiplication by 10s and 100s

Choose a box on the grid.

Complete the multiplication and write it and the answer in your book.

Try to complete the whole grid!

5×30	6×20	5×40	2×80
1×160	2×60	5×20	3×50
3×40	4×30	12×10	1×120
2×70	10×12	4×50	9×10

Did you find any particularly easy?

Challenge

Colour the multiplications with an answer of 120.

What pattern do these make?

Write four multiplications that all have the answer 200.

Practice Sheet Hot

Multiplication by 10s and 100s

Choose a number on the grid.

Write a multiplication with that number as the answer.

If you are happy it is correct, colour that number on the grid. Repeat this four times so that you have shaded a cross of coloured squares on the grid.

	1200	540	
210	2100	280	2800
360	3600	560	4800
	2500	420	

Challenge

The number 600 is the answer to 12 different multiplications!
Can you find them all?

Practice Sheet Answers

Multiplication by 10s and 100s (mild)

$5 \times 30 =$ 150	$6 \times 20 =$ 120	$5 \times 40 =$ 200	$2 \times 80 =$ 160
$1 \times 160 =$ 160	$2 \times 60 =$ 120	$5 \times 20 =$ 100	$3 \times 50 =$ 150
$3 \times 40 =$ 120	$4 \times 30 =$ 120	$12 \times 10 =$ 120	$1 \times 120 =$ 120
$2 \times 70 =$ 140	$10 \times 12 =$ 120	$4 \times 50 =$ 200	$9 \times 10 =$ 90

Challenge

The multiplications with an answer of 120 make a cross in the grid.

Answers could include 4 of the following:

$20 \times 10 = 200$

$2 \times 100 = 200$

$40 \times 5 = 200$

$50 \times 4 = 200$

$200 \times 1 = 200$

$8 \times 25 = 200$

Multiplication by 10s and 100s (hot)

Accept answers similar to:

	$3 \times 400 =$ 1200	$6 \times 90 =$ 540	
$7 \times 30 =$ 210	$7 \times 300 =$ 2100	$4 \times 70 =$ 280	$4 \times 700 =$ 2800
$6 \times 60 =$ 360	$6 \times 600 =$ 3600	$7 \times 80 =$ 560	$8 \times 600 =$ 4800
	$5 \times 500 =$ 2500	$7 \times 60 =$ 420	

Challenge

$600 = 1 \times 600, 2 \times 200, 4 \times 150, 5 \times 120, 6 \times 100, 8 \times 75, 10 \times 60, 12 \times 50, 15 \times 40, 20 \times 30, 24 \times 25$

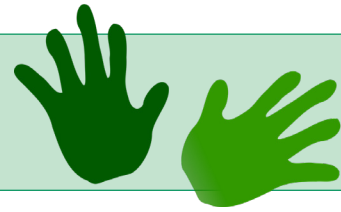
Do not expect children to find all of these in Year 4.

A Bit Stuck?

Ladders to success

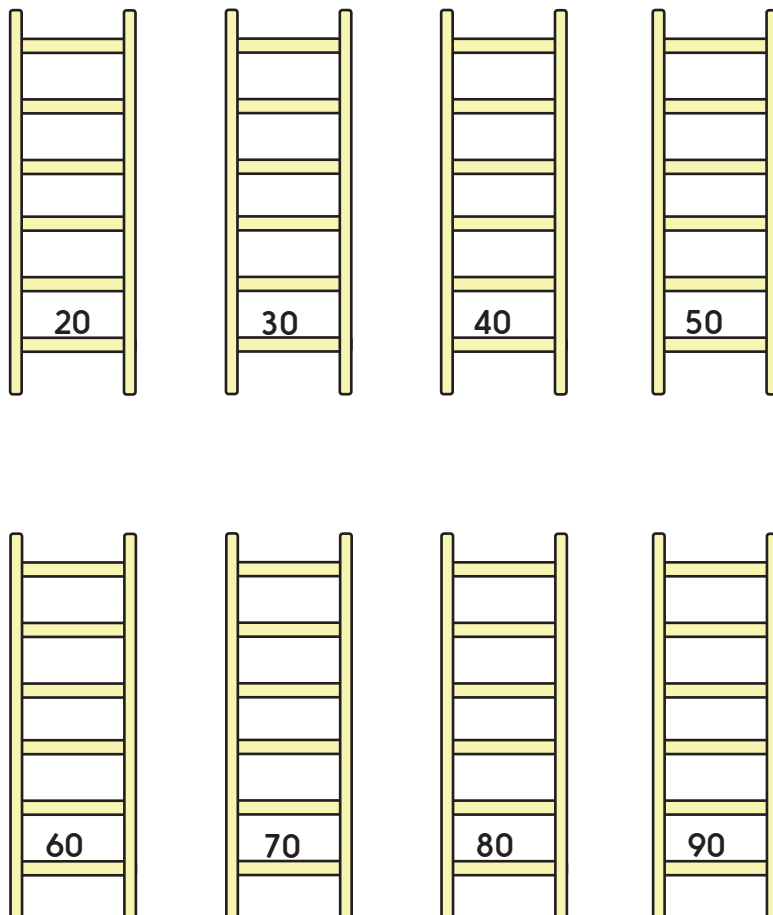
Things you will need:

- A pencil



What to do:

- Count in steps of 20, 30, 40, 50, 60, 70 and 80 to work out what number belongs on the top rung.



S-t-r-e-t-c-h:

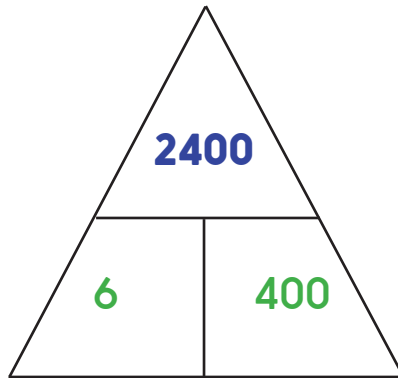
Draw your own ladder with a number in the 30 times table at the top. Ask your partner to work out what number belongs on the bottom rung. Swap roles and repeat.

Learning outcomes:

- I can count in steps of multiples of 10.

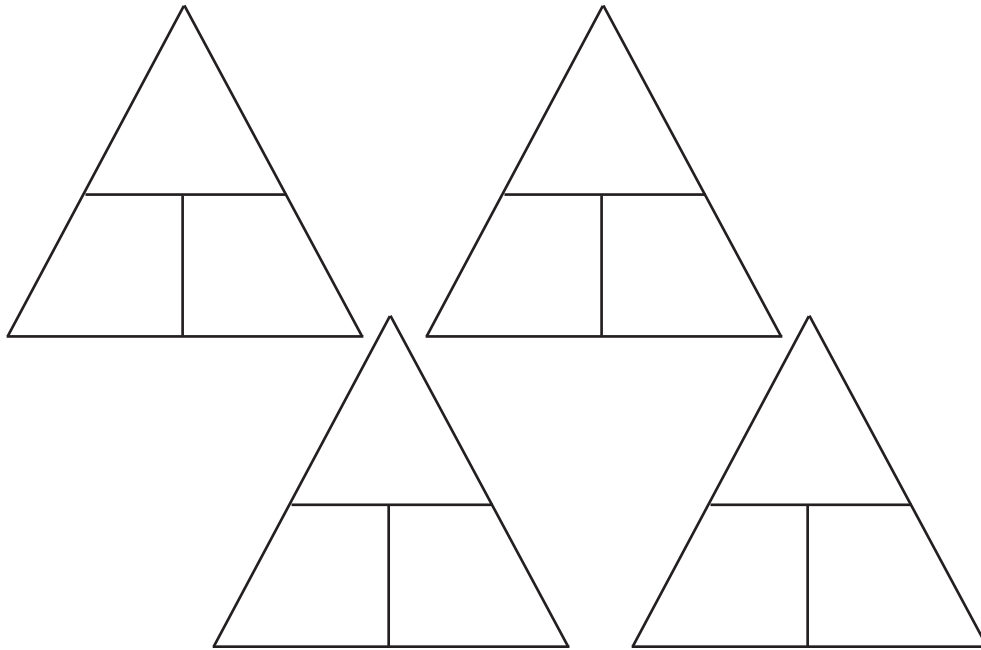
Investigation

Number triangles



The numbers in this triangle are related – the number at the top is the product of the other two. What multiplications and divisions can you write to go with it?

Draw other triangles with 2400 at the top...



What other triangles could you draw with 400 on the right?

Over to you...

Think of your own number to go at the top. It must be a 4-digit multiple of 100, e.g. 1600, 4200, 3500, etc.

Draw as many number triangles as you can for your number.

Now think of a new number to go at the top.

Can you think of a number which means you can draw more triangles?

Your challenge is to draw 12 different triangles for one number!