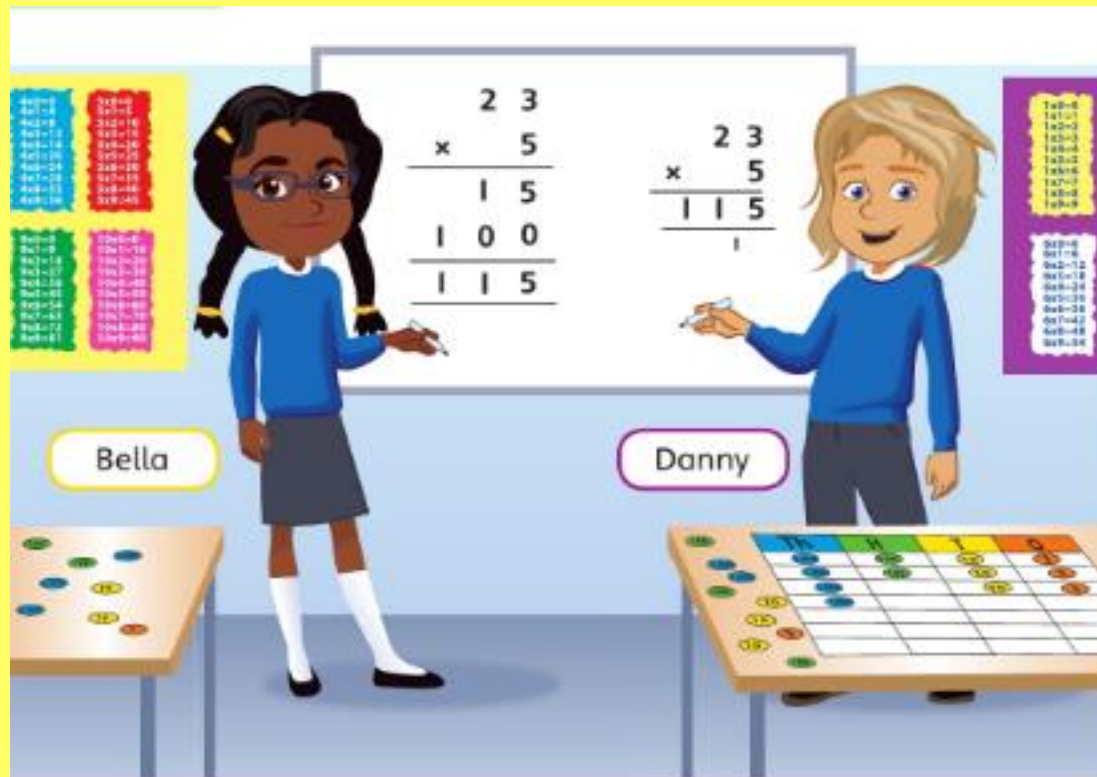


Wednesday - maths

Power up



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

Power up answer

- 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!

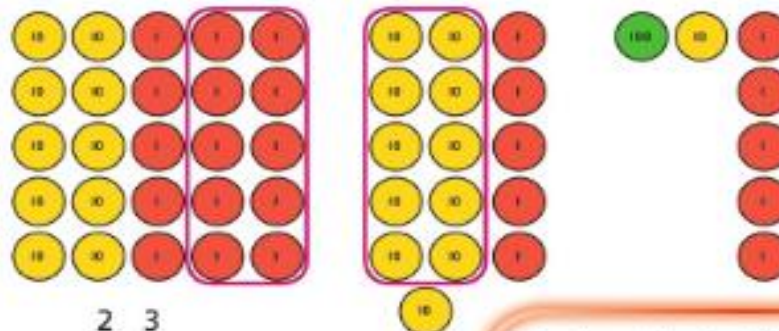


No, I can see what he has done. He has just done it all in one line. It is quicker that way.



- b) This shows the calculation 23×5 .

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, $23 \times 5 = 115$



LO: To use short multiplication

So far this week, we have looked at written methods for short multiplication

Remember to put the digits in the correct place value columns

Remember to start to multiply the ones by the divisor first

Remember to carry if you need to

Remember to add in any numbers carried when you multiply the tens by the divisor

LO: To use short multiplication

24x4

	H	T	O
x			

LO: To use short multiplication

32x6

	H	T	O
x			

LO: To use short multiplication

27x3

	H	T	O
x			

LO: To use short multiplication

42x7

	H	T	O
x			

LO: To use short multiplication

Success Criteria:

- Line up digits carefully
- Multiply ones
- Multiply tens
- Show numbers carried
- Remember to add in numbers carried

Answers
for a-e on
next slide



Fluency	
a)	36×2
a)	27×5
c)	41×5
d)	19×2
e)	83×5
<ul style="list-style-type: none">• Mark your work• If you get them all right move on to step 2• If you get more than 1 wrong speak to an adult for help then complete the questions below.	
f)	54×2
g)	31×5
h)	49×5
i)	72×2
j)	64×5

LO: To use short multiplication

- a) 72
- b) 135
- c) 205
- d) 38
- e) 415

Now if you are mostly correct, carry on with your fluency, then move on to reasoning and problem solving questions. If you are unsure, then ask for some help

LO: To use short multiplication

Complete the reasoning questions

Here are 6 multiplications.

$$43 \times 5$$

$$54 \times 6$$

$$38 \times 6$$

$$33 \times 2$$

$$19 \times 7$$

$$84 \times 5$$

Which of the multiplications would you calculate mentally?

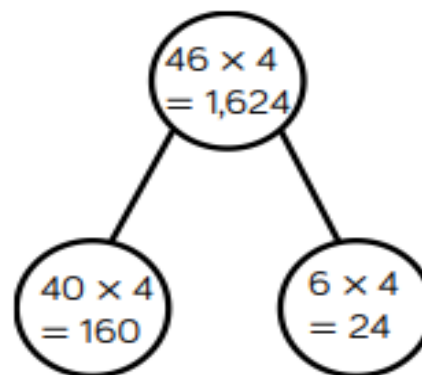
Which of the multiplications would you use a written method for?

Explain your choices to a partner.

Did your partner choose the same methods as you?

Complete the problem solving question

Ron is calculating 46 multiplied by 4 using the part-whole model.



Can you explain Ron's mistake?

LO: To use short multiplication

Check the rest of your answers...

Fluency

f) 108

g) 155

h) 245

i) 144

j) 320

reasoning

Children will sort the multiplications in different ways.

It is important that teachers discuss with the children why they have made the choices and refer back to the efficient multiplication step to remind children of efficient ways to multiply mentally.

problem solving

Ron has multiplied the parts correctly, but added them up incorrectly.

$$160 + 24 = 184$$