## Tuesday - maths

## Power up



## Power up answer

a) There are 10 trees in Andy's orchard and 8 trees in Jamilla's orchard. Each tree has 6 apples.



$$
8 \times 6=48
$$

Andy's orchard has 60 apples. Jamilla's orchard has 48 apples.
b) $60+48=108$

There are 108 apples in total.

I added the two answers together.


$$
\begin{aligned}
18 \times 6 & =\underbrace{10 \times 6}_{1}+\underbrace{8 \times 6}_{1} \\
& =60+48 \\
& =108
\end{aligned}
$$

I did $18 \times 6$ to find the total. There are 18 trees in total and 6 apples in each tree.

There are 108 apples in total.

LO: To use a written method for multiplication
Today we are going to use our times table knowledge to complete multiplication questions using a written method.

Think what written method we might use?

## LO: To use a written method for

 multiplicationThis is showing four rows of 43 . How do you know? Each row shows 4 tens +3 ones- this is $40+3$. So this would be written as

$$
43 \times 4
$$

| $H$ | $T$ | 0 |
| :---: | :---: | :---: |
|  | $\bullet \bullet \bullet \bullet$ | $\bullet \bullet \bullet$ |
|  | $\bullet \bullet \bullet \bullet$ | $\bullet \bullet$ |
|  | $\bullet \bullet \bullet \bullet$ | $\bullet \bullet$ |
|  | $\bullet \bullet \bullet \bullet$ | $\bullet \bullet$ |


|  | $H$ | T | O |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| $x$ |  |  |  |
|  |  |  |  |

## LO: To use a written method for multiplication Your turn...

What number is represented in the first row of the place value columns? How many rows? How would you show this as a multiplication calculation?

| $H$ | T | O |
| :---: | :---: | :---: |
|  | $\bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet$ |  |
|  | $\bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet$ |  |
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## LO: To use a written method for multiplication - Answer

| $H$ | T | O |
| :---: | :---: | :---: |
|  | $\bullet \bullet \bullet \bullet \bullet$ | $\bullet \bullet \bullet \bullet$ |
|  | $\bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet$ |  |
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|  | $\bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet \bullet$ |  |

Each row shows 54
There are 6 rows
So this shows $54 \times 6$

|  | H | T | O |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| x |  |  |  |
|  |  |  |  |

LO: To use a written method for multiplication
What does each row
Represent?
How many rows?
Work out the calculation

|  | H | T | O |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $x$ |  |  |  |
|  |  |  |  |


| H | T | 0 |
| :---: | :---: | :---: |
|  | - - | - |
|  | - - | - $0 \bigcirc$ |
|  | - - | - $0 \bigcirc 0$ |
|  | - - | $\bigcirc \bigcirc \bigcirc$ |
|  | - - | - |
|  | - $\bullet$ | $\bigcirc \bigcirc \bigcirc$ |
|  | - - | - |
|  | - - | $\bigcirc \bigcirc \bigcirc$ |

LO: To use a written method for multiplication
What does each row
Represent?
How many rows?
Work out the calculation

|  | H | T | O |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| $x$ |  |  |  |
|  |  |  |  |


| $H$ | T | 0 |
| :---: | :---: | :---: |
|  | $\bullet \bullet \bullet$ | $\bullet \bullet \bullet \bullet \bullet$ |
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## LO: To use a written method for

 multiplication
## Success Criteria:

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

Complete Fluency questions


|  | H | T | O |
| :---: | :---: | :---: | :---: |
|  |  | 3 | 1 |
| x |  |  | 3 |
|  |  |  |  |



| H | T | 0 |
| :---: | :---: | :---: |
|  | -e* - - | - $0 \cdot 0$ |
|  | -ee e e e | - ${ }^{-1}$ |
|  | -00 - - | - - - ${ }^{\circ}$ |
|  | $\bullet$ - - - | - $0^{\circ}$ |

## LO: To use a written method for

## multiplication

Complete Reasoning questions

Teddy has calculated $19 \times 3$

$20 \times 3=60$
$60-1=59$
$19 \times 3=59$

Can you explain his mistake and correct the diagram?

Complete Problem solving questions

Here are three number cards.


Dora, Annie and Eva choose one of the number cards each.
They multiply their number by 5
Dora says,


I did $40 \times 5$ and then subtracted 2 lots of five.

Annie says,
I multiplied my number by 10 and then divided 210 by 2

Eva says,


I halved my 2-digit number and doubled 5 so I calculated $21 \times 10$

Which number card did each child have? Would you have used a different method to multiply the numbers by 5 ?

## LO: To use a written method for

 multiplication
## Challenge questions

1) $22 \times 3=$
2) $12 \times 4=$
3) $33 \times 3=$
4) $34 \times 5=$
5) $23 \times 6=$

