LO: To multiply 2 digit by 1 digit using exchanging
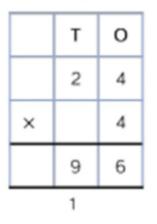
•To use my knowledge of place value in my written method.

•To use my times tables knowledge to solve calculations using written method.

•To understand what happens when exchanging when using the written method.
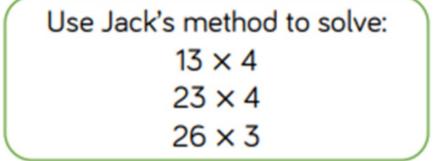
•To problem solve and reason using the written method.

Key vocabualry: exchanging, multiplication, multiply,

Jack uses Base 10 to calculate 24 × 4

Tens	Ones

	T	O
	2	4
×		4
	9	6
	1	

Use Jack's method to solve:

13 × 4

23 × 4

26 × 3

These are the two methods we could use to solve T0 X 0. Use one of these methods to multiply the 3 questions above.

Jack uses Base 10 to calculate 24 × 4

Tens	Ones
▭▭	▪▪▪▪
▭▭	▪▪▪▪
▭▭	▪▪▪▪
▭▭	▪▪▪▪

	T	O
	2	4
×		4
	9	6
	1	

Use Jack's method to solve:

$$13 \times 4$$
$$23 \times 4$$
$$26 \times 3$$

13 x 4 = 52
23 x 4= 92
26 x 3 = 78

What steps do we need to take to solve this reasoning question?

True or false? You don't need to exchange to calculate 34 x 4 using column multiplication.

Explain your answer using a sentence.

RoundRobin

```
    3   4

        4
  _____
  1   3   6
  _____
      1
```

The answer is false, because when multiplying the ones (4x4) the answer is 16 and therefore I had to exchange

1

Flunecy:

52 x 5=

17 x 4 =

29 x 3=

67 x 2 =

14 x 8 =

Flunecy answers:

52 x 5=260

17 x 4 =68

29 x 3=87

67 x 2 = 134

14 x 8 =112

Now that we can reason with column mehtod lets have a go at solving some problems, what steps do I need to take to to solve this problem?

Using these 3 number cards to fill in the blanks what calculation would get me closest to 150
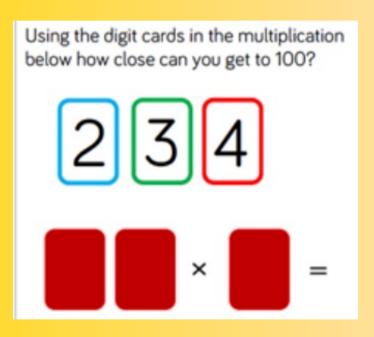
_____ _____ x _____ =

Explain your answer using a sentence.

4   5   2

Problem solving

Using the digit cards in the multiplication below how close can you get to 100?

2 3 4

■■ × ■ =

Have a go at solving this problem on your own, using your white board.

Tina, Karren and Tracey, wrote 56 Christmas cards each, how many Christmas cards did they write altogether?

$$
\begin{array}{r}
5\ \ 6 \\
3 \\
\hline
1\ \ 6\ \ 8 \\
\hline
\end{array}
$$

Altogether the 3 ladies wrote 168 Christmas cards.

Reasoning

Charlotte answered the question 27 × 3,
her answer is 6021

What mistake could she have made?

Answers

How close can you get to 100?
Use each digit card once in the multiplication.

2 3 4

☐☐ × ☐ =

You can get within 8 of 100

$23 \times 4 = 92$ this is the closest answer.

$24 \times 3 = 72$

$32 \times 4 = 128$

$34 \times 2 = 68$

Explain the mistake.

H	T	O
	2	7
×		3
6	2	1

They have not performed the exchange correctly.
6 tens and 2 tens should be added together to make 8 tens so the correct answer is 81