

Lesson 4- Multiply 3 by 2-digit numbers

LO: To be able to multiply 3 by 2 digit numbers

Recall

- Solve these multiplications

$$\begin{array}{r} 66 \\ 44 \\ \hline x \\ \hline \\ \hline \\ \hline \\ \hline \end{array}$$

x	30	7
20		
6		

Guided practice - My turn

- ▶ How many boxes of cereal are there in 143 packs?
- ▶ Use the grid method to work out your answer
- ▶ Check your answer using long multiplication (written) method.

help

- ▶ A multiplication square may be helpful



- ▶ Mega flakes makes larger packs that each contain 16 boxes of cereal. A supermarket buys 217 of these new packs. How many boxes of cereal does the supermarket buy?



Guided practice - your turn

- ▶ How many boxes of cereal are there in 126 packs?
- ▶ Use the grid method to work out your answer
- ▶ Check your answer using long multiplication (written) method.

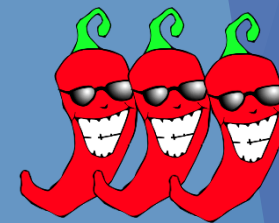
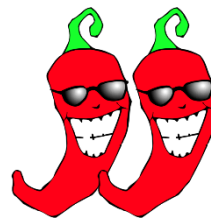
help

- ▶ A multiplication square may be helpful



- ▶ Mega flakes makes larger packs that each contain 18 boxes of cereal. A supermarket buys 225 of these new packs. How many boxes of cereal does the supermarket buy?





Use grid method to solve these calculations.

$$1. 243 \times 36 =$$

$$2. 546 \times 37 =$$

$$3. 425 \times 38 =$$

$$4. 374 \times 39 =$$

Use the written method to solve these

$$1. 324 \times 43 =$$

$$2. 573 \times 44 =$$

$$3. 826 \times 45 =$$

$$4. 635 \times 46 =$$

Then, check each of these with the written method. If they are wrong, correct them

$$1. 463 \times 72 = 33336$$

$$2. 367 \times 64 = 21488$$

$$3. 456 \times 56 = 23356$$

$$4. 638 \times 27 = 17226$$



Mo has five digit cards.



He uses the cards to make a 2-digit number and a 3-digit number and then multiplies them together.



a) What answer should Mo get?

b) Rearrange the cards to make a multiplication with a bigger answer. Is there a multiplication that gives a smaller answer?



Dive Deeper 1

1)

Pencils come in boxes of 64
A school bought 270 boxes.
Rulers come in packs of 46
A school bought 720 packs.
How many more rulers were ordered
than pencils?



3)

Estimation

$$29 \times 26$$

The answer will be **odd/even**.

$$20 \times 20 = 400$$

$$30 \times 30 = 900$$

Estimation for 29×26 is

2)

2b. A catering company want to work out
their profit from three events this year.

Event	Number of guests	Profit per guest (£)
Wedding	302	13
Party	712	12
Graduation	123	21

How much money did the company
make from each event?

4)

Part-Complete Examples

$$\begin{array}{r}
 63 \\
 \times 53 \\
 \hline
 189 \\
 \square\square 50 \\
 1 \\
 \hline
 \square\square\square 9
 \end{array}$$

$$\begin{array}{r}
 24 \\
 \times 16 \\
 \hline
 \square\square 4 \\
 24\square \\
 \hline
 \square\square\square
 \end{array}$$

$$\begin{array}{r}
 81 \\
 \times 46 \\
 \hline
 486 \\
 \square\square\square\square \\
 \hline
 3\square\square\square
 \end{array}$$



Dive Deeper 2

1)

Here are examples of Dexter's maths work.

			9	8	7
x				7	6
		5	9	4	2
		6	9	4	0
	1	2	8	3	1

			3	2	4
x				7	8
			5	9	2
		2	1	3	
	2	1	2	6	8
			3	2	7

He has made a mistake in each question.

Can you spot it and explain why it's wrong?

Correct each calculation.

2)

$$22 \times 111 = 2442$$

$$23 \times 111 = 2553$$

$$24 \times 111 = 2664$$

What do you think the answer to 25×111 will be?

What do you notice?

Does this always work?

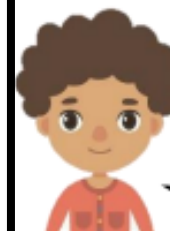
3)

6b.

I think that 14×300 is bigger than 141×30 .



Milly



Omar

I think that 141×30 is bigger than 14×300 .

Who is correct? How do you know?