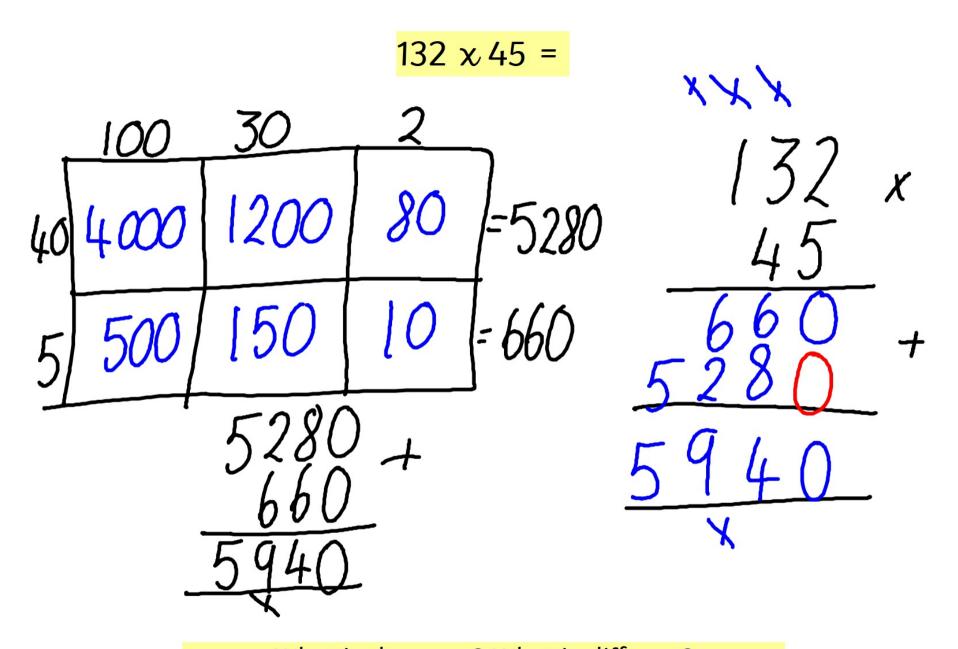
#### 08.02.21

## WALT: Multiply a 2 digit number by 3 digits

## Vocabulary check

multiply
multiplicand
multiplier
product
place value
partitioning
associative law
distributive law
commutative law

x 2 multiplicand multiplier product



What is the same? What is different? Which is the most efficient method?

 $232 \times 36 =$ 

 $192 \times 41 =$ 

## Hinge Question

 $123 \times 65 =$ 



## Try It

$$128 \times 45 =$$

$$371 \times 43 =$$

$$262 \times 34 =$$

$$122 \times 86 =$$

$$432 \times 19 =$$

$$382 \times 34 =$$

# Use the multiplication grid to help you with your $\boldsymbol{x}$ tables

X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

## Use it

- 1) Jon has 236 boxes of apples, each box contains 12 apples. How many does he have altogether?
- 2) Laura sells 815 cups of orange juice, each cup contains 33ml of drink. How much orange juice does she sell altogether?
- A school bought 270 boxes.
  Rulers come in packs of 46
  A school bought 720 packs.
  How many more rulers were ordered than pencils?

### Prove it

1)

22 × 111 = 2442

 $23 \times 111 = 2553$ 

24 × 111 = 2664

What do you think the answer to  $25 \times 111$  will be?

What do you notice?

Does this always work?

Here are examples of Dexter's maths work.

			9	8	7				3	2	4
×				7	6	×				7	8
		5	59	42	2			2	5	39	2
		6	69	40	9		2	12		8	0
	1	,2	8	,3	1			3	2	7	2

He has made a mistake in each question.

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

Correct each calculation.