22.01.21

WALT: Multiply 2 digits by 2 digits2

Vocabulary check

multiply
multiplicand
multiplier
product
place value

15		multiplicand
x 2		multiplier
30		product

Thousands	Hundreds	Tens	Ones

15 x 14 =

(15 x 10) + (15 x 4)

×	10	5
10		
4		

$$\begin{array}{r} 15 \\ \times\ 14 \\ \hline \\ \hline \end{array}$$

I do

24 x 32 =

(24 x 30) + (24 x 2) =

×	20	4
30		
2		

$$\begin{array}{r} 24 \\ \times\ 32 \\ \hline \\ \hline \end{array}$$

There are 16 shelves in the library. Each shelf holds 45 books. How many books are there in total.

$45 \times 16 =$

$(45 \times 10) + (45 \times 6)$

×	40	5
10		
6		

$$\begin{array}{r} 45 \\ \times\ 16 \\ \hline \end{array}$$

```
  67
x 23
201
```
1. Multiply by the one's place

(67 x3)

```
  67
x 23
201
 0
```
2. Put a zero to hold the one's place

```
  67
x 23
201
1340
```
3. Multiply by the ten's place

(67 x 20)

```
  67
x 23
201
1340
1541
```
4. Add the numbers

(67 x 3) + (67 X 20)

$$\begin{array}{r} 37 \\ \times\ 22 \\ \hline \\ \hline \end{array}$$

$$\begin{array}{r} 67 \\ \times\ 23 \\ \hline 201 \end{array}$$

1. Multiply by the one's place

$$\begin{array}{r} 67 \\ \times\ 23 \\ \hline 201 \\ 0\ \swarrow \end{array}$$

2. Put a zero to hold the one's place

$$\begin{array}{r} 67 \\ \times\ 23 \\ \hline 201 \\ 1340 \end{array}$$

3. Multiply by the ten's place

$$\begin{array}{r} 67 \\ \times\ 23 \\ \hline 201 \\ 1340 \\ \hline 1541 \end{array}$$

4. Add the numbers

You do

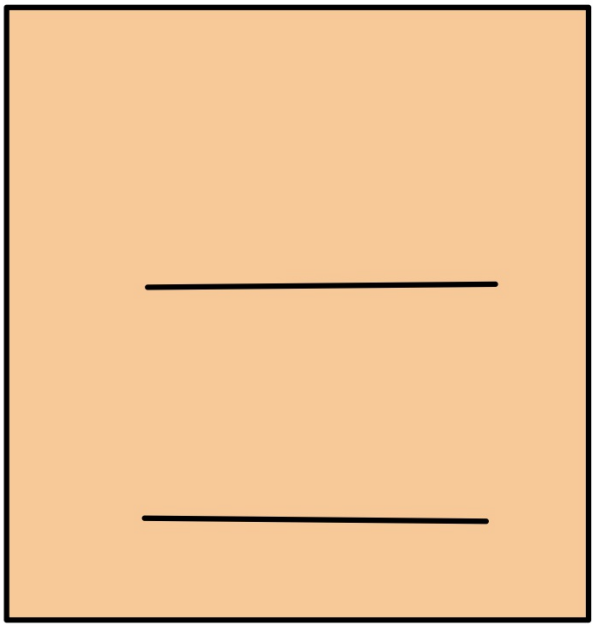
$$\begin{array}{r} 46 \\ \times\ 32 \\ \hline \\ \hline \\ \hline \end{array}$$

$45 \times 24 =$ ▭

$42 \times 35 =$ ▭

You do

There are 32 biscuits in each packet.
How many biscuits in 24 packets?



What mistake has been made here?

	1 3	7	
×	2	3	
1	1	1	(37 × 3)
	7	4	(37 × 20)
1	8	5	

Hinge

Which of these is correct for 54 x 32 =

A. 270

B. 1728

C. 260

D I'm not sure

Try it

1) Complete these calculations.

a)

		3	2
	×	4	3
		9	6

(32 × 3)

_____

b)

		5	4
	×	2	7

(54 × 7)

(54 × 20)

Use the formal written method to calculate these

2. 45 x 13 =
3. 26 x 42 =
4. 51 x 29 =
5. 51 x 24 =
6. 65 x 23 =
7. 93 x 53 =

Use it

1. A school kitchen uses 53 bags of potatoes every week. How many bags do they use in 12 weeks?

2. A bath holds 48 litres of water. How many litres does it take to fill 32 baths?

3. In the library there are 63 book shelves. Each shelf holds 34 books. How many books are there in total?

4. There are 35 biscuits in each packet. How many 8 year olds could each have a biscuit if there were 24 packets?

5. Amir has multiplied 47 by 36

		4	7
×		3	6
	2	8	2
	1	4	1
	3	2	3

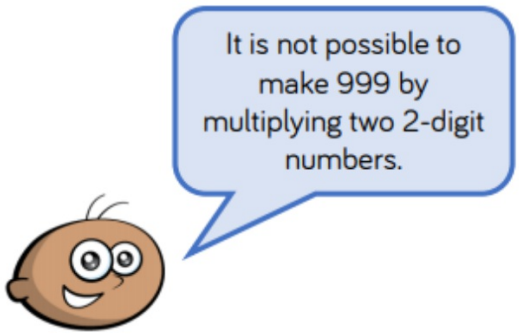
Alex says,

Amir is wrong because the answer should be 1,692 not 323

Who is correct?
What mistake has been made?

Prove it

Tommy says,



Do you agree?
Explain your answer.

To solve this you will need to use trial and error and a systematic approach.