

06.01.21

LO: **Multiply** 4-digits and
3-digits by 1-digit.

Multiply 3-digits by 1-digit

1 Filip uses a place value chart to help him multiply a 3-digit number by a 1-digit number.

| Hundreds | Tens | Ones |
|----------|-------|---------|
| 100 | 10 10 | 1 1 1 1 |
| 100 | 10 10 | 1 1 1 1 |
| 100 | 10 10 | 1 1 1 1 |

a) What multiplication is Filip working out?

$$\square \times \square$$

b) What is the answer to Filip's multiplication?

2 Use place value counters to complete the multiplications.

a) $3 \times 213 =$

d) $6 \times 106 =$

b) $4 \times 216 =$

e) $4 \times 209 =$

c) $5 \times 106 =$

f) $317 \times 3 =$



3 Complete the multiplication.

Use the place value chart to help you.

| H | T | O |
|---------|----|--------------|
| 100 100 | 10 | 1 1 1 1 1 |
| 100 100 | 10 | 1 1 1 1 1 |
| 100 100 | 10 | 1 1 1 1 1 |

| | | | | | |
|--|---|-------|---|---|--|
| | | | | | |
| | | H | T | O | |
| | | 2 | 1 | 5 | |
| | x | | | 3 | |
| | | _____ | | | |
| | | _____ | | | |

4 Complete the multiplications.

a)

| | | | | | |
|--|---|-------|---|---|--|
| | | | | | |
| | | H | T | O | |
| | | 2 | 1 | 7 | |
| | x | | | 4 | |
| | | _____ | | | |
| | | _____ | | | |

c)

| | | | | | |
|--|---|-------|---|---|--|
| | | | | | |
| | | H | T | O | |
| | | 1 | 0 | 8 | |
| | x | | | 6 | |
| | | _____ | | | |
| | | _____ | | | |

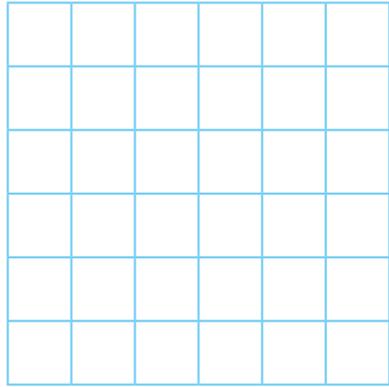
b)

| | | | | | |
|--|---|-------|---|---|--|
| | | | | | |
| | | H | T | O | |
| | | 4 | 3 | 9 | |
| | x | | | 2 | |
| | | _____ | | | |
| | | _____ | | | |

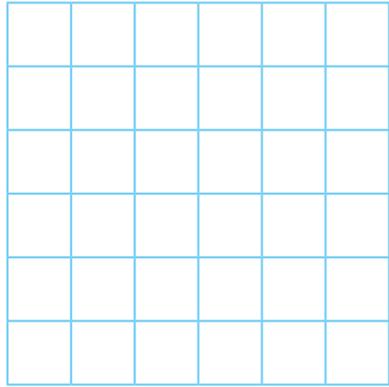
d) 163×5

| | | | | | |
|--|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

e) 3×240

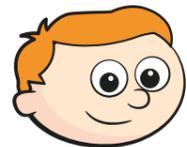


f) 7×131



5 A lorry driver travels 156 km per day.
How many kilometres will the lorry driver have travelled after 3 days?

6 Ron and Teddy are working out 5×245



Ron

I know the answer will be greater than 1,000 because I know 5×200 is 1,000

I know the answer should end in 5 because I know 5×5 is 25



Teddy

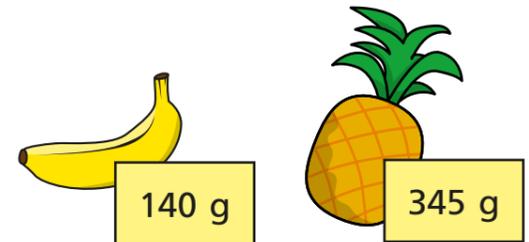
a) Who is correct? Circle your answer.

- Ron Teddy both neither

b) Use a written method to work out 5×245

7 There are 7 year groups in a school.
There are 112 children in each year group.
How many children are there in the whole school?

8 A banana weighs 140 g
A pineapple weighs 345 g



Bag A contains 8 bananas and bag B contains 3 pineapples.
Which bag weighs more and by how much?
Show your working.

Bag _____ weighs g more than bag _____.

Multiply 4-digits by 1-digit



1 Complete the sentences to describe the multiplication.

| Th | H | T | O |
|-------------|---------|----|-------|
| 1,000 1,000 | 100 100 | 10 | 1 1 1 |
| 1,000 1,000 | 100 100 | 10 | 1 1 1 |
| 1,000 1,000 | 100 100 | 10 | 1 1 1 |

There are ones altogether.

There are tens altogether.

There are hundreds altogether.

There are thousands altogether.

$2,213 \times 3 =$

2 Complete the multiplication.

Use the place value chart to help you.

| Th | H | T | O |
|----|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

| | | | | | | | |
|--|--|-------|---|---|---|---|--|
| | | | | | | | |
| | | 2 | 1 | 0 | 2 | | |
| | | × | | | | 4 | |
| | | _____ | | | | | |
| | | _____ | | | | | |



3 A football stadium holds 2,214 people.
The stadium is full for 4 matches in a row.
What was the attendance for all 4 matches?

| Th | H | T | O |
|-------------|---------|----|-----|
| 1,000 1,000 | 100 100 | 10 | 1 1 |
| 1,000 1,000 | 100 100 | 10 | 1 1 |
| 1,000 1,000 | 100 100 | 10 | 1 1 |
| 1,000 1,000 | 100 100 | 10 | 1 1 |

| | | | | | | | |
|--|--|-------|---|---|---|---|--|
| | | | | | | | |
| | | 2 | 2 | 1 | 4 | | |
| | | × | | | | 4 | |
| | | _____ | | | | | |
| | | _____ | | | | | |

The attendance for all 4 matches was

4 Nijah is calculating $2,430 \times 3$
She makes this place value chart to help her.

| Th | H | T | O |
|----|---------|-------|-----|
| | 100 100 | 10 10 | 1 1 |
| | | 10 10 | 1 |
| | 100 100 | 10 10 | 1 1 |
| | | 10 10 | 1 |
| | 100 100 | 10 10 | 1 1 |
| | | 10 10 | 1 |

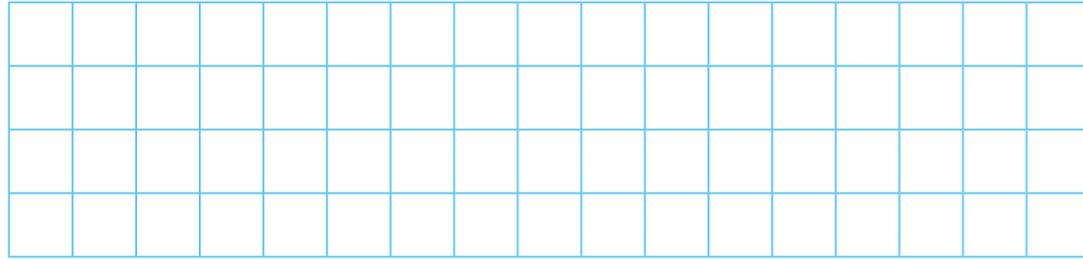
She gets the answer 729
What mistake has Nijah made?

What is the correct answer?

5 Complete the multiplications.

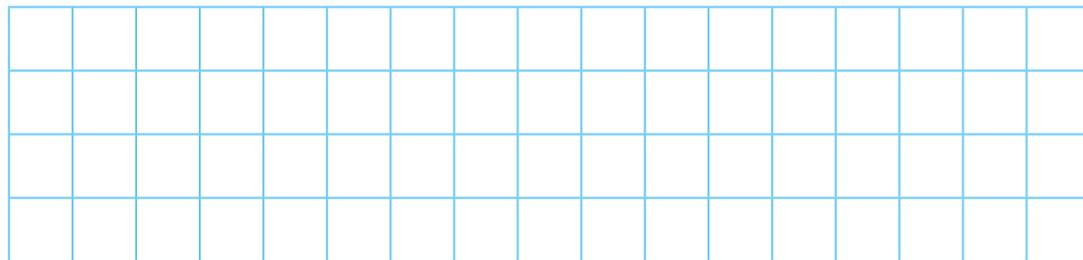
a) $3,126 \times 3 =$

c) $4,132 \times 6 =$



b) $4,812 \times 2 =$

d) $1,502 \times 5 =$



6 Ron is working out $7,423 \times 0$

$$\begin{array}{r}
 7\ 4\ 2\ 3 \\
 \times \quad \quad 0 \\
 \hline
 7\ 4\ 2\ 3
 \end{array}$$



Do you agree with Ron? _____

Did Ron have to use a column method? Is there a quicker way?

7 Work out these multiplications.

$2,846 \times 2 =$

$2,846 \times 4 =$

$2,846 \times 8 =$

What do you notice about the answers?

8

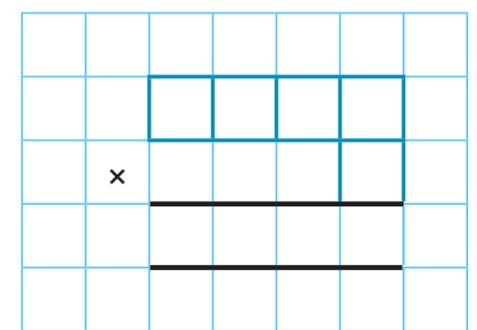
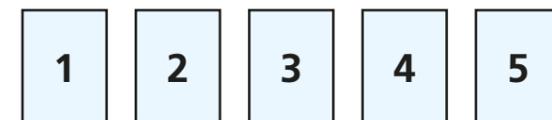
$248 \times 10 = 2,480$

Without using the formal method, how could you use this fact to calculate 248×9 ?

Check your answer using the formal method.

Which method was easier?

9 Use each digit card once to write a multiplication.



How many different products can you find?

What is the closest product to 8,000?



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LO: Multiply 4-digits and 3-digits by 1-digit.

Extension:

Complete the calculation.

| Hundreds | Tens | Ones |
|----------|------|-------|
| 100 100 | | 1 1 1 |
| 100 100 | | 1 1 1 |
| 100 100 | | 1 1 1 |

| | H | T | O |
|---|---|---|---|
| | 2 | 0 | 3 |
| x | | | 3 |
| | | | |

A school has 4 house teams.
There are 245 children in each house team.
How many children are there altogether?

| Hundreds | Tens | Ones |
|----------|-------------|-----------|
| 100 100 | 10 10 10 10 | 1 1 1 1 1 |
| 100 100 | 10 10 10 10 | 1 1 1 1 1 |
| 100 100 | 10 10 10 10 | 1 1 1 1 1 |
| 100 100 | 10 10 10 10 | 1 1 1 1 1 |

| | H | T | O |
|---|---|---|---|
| | 2 | 4 | 5 |
| x | | | 4 |
| | | | |

Write the multiplication represented by the counters and calculate the answer using the formal written method.

| Hundreds | Tens | Ones |
|-------------|-------------------|------|
| 100 100 100 | 10 10 10 10 10 10 | |
| 100 100 100 | 10 10 10 10 10 10 | |

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LO: Multiply 4-digits and 3-digits by 1-digit.

Extension:

Complete the calculation.

| Thousands | Hundreds | Tens | Ones |
|-----------|----------|-------|-------|
| 1000 | | 10 10 | 1 1 1 |
| 1000 | | 10 10 | 1 1 1 |
| 1000 | | 10 10 | 1 1 1 |

| | Th | H | T | O |
|---|----|---|---|---|
| | 1 | 0 | 2 | 3 |
| x | | | | 3 |
| | | | | |

Write the multiplication calculation represented and find the answer.

| Thousands | Hundreds | Tens | Ones |
|-----------|----------|------|-------------|
| 1000 1000 | 100 | | 1 1 1 1 1 1 |
| 1000 1000 | 100 | | 1 1 1 1 1 1 |

Remember if there are ten or more counters in a column, you need to make an exchange.

Annie earns £1,325 per week.

How much would he earn in 4 weeks?

| Thousands | Hundreds | Tens | Ones |
|-----------|-------------|-------|-----------|
| 1000 | 100 100 100 | 10 10 | 1 1 1 1 1 |
| 1000 | 100 100 100 | 10 10 | 1 1 1 1 1 |
| 1000 | 100 100 100 | 10 10 | 1 1 1 1 1 |
| 1000 | 100 100 100 | 10 10 | 1 1 1 1 1 |

| | Th | H | T | O |
|---|----|---|---|---|
| | 1 | 3 | 2 | 5 |
| x | | | | 4 |
| | | | | |

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LO: **Multiply** 4-digits and 3-digits by 1-digit.

Use your **purple pen**:

Complete the following sentences, underlining your answers:

1. We show there is nothing in a place value column by ...
2. If there are ten or more counters in a place value column we ...
3. The part of a multiplication that is the product is ...