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?

$$\boxed{124} \times \boxed{3}$$

b) What is the answer to Filip's multiplication? $\boxed{372}$

2 Use place value counters to complete the multiplications.

a) 3 × 213 = $\boxed{639}$ **d)** 6 × 106 = $\boxed{636}$

b) 4 × 216 = $\boxed{864}$ **e)** 4 × 209 = $\boxed{836}$

c) 5 × 106 = $\boxed{530}$ **f)** 317 × 3 = $\boxed{951}$

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
×           3
    6  4  5
       1
```

4 Complete the multiplications.

a)
```
    H  T  O
    2  1  7
×        4
    8  6  8
       2
```

c)
```
    H  T  O
    1  0  8
×        6
    6  4  8
       4
```

b)
```
    H  T  O
    4  3  9
×        2
    8  7  8
       1
```

d) 163 × 5
```
    H  T  O
    1  6  3
×        5
    8  1  5
    3  1
```

e) 3 × 240

```
  H T O
  2 4 0
×     3
  7 2 0
  1
```
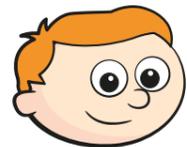
f) 7 × 131

```
  H T O
  1 3 1
×     7
  9 1 7
    2
```

5 A lorry driver travels 156 km per day.

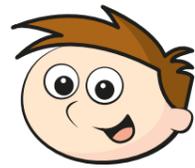How many kilometres will the lorry driver have travelled after 3 days?

468km

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*

Ron

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

Teddy

a) Who is correct? Circle your answer.

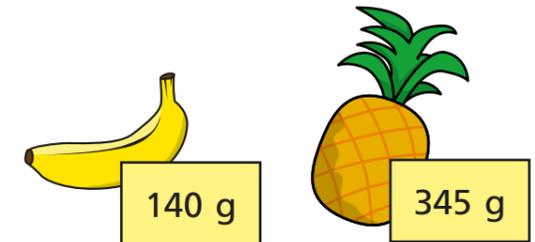Ron   Teddy   (both)   neither

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

1,225

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?

784

8 A banana weighs 140 g

A pineapple weighs 345 g

140 g   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 ___A___ weighs [85] g more than bag ___B___.

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 **9** ones altogether.

There are **3** tens altogether.

There are **6** hundreds altogether.

There are **6** thousands altogether.

2,213 × 3 = **6,639**

2 Complete the multiplication.

Use the place value chart to help you.

Th	H	T	O
OO	O		OO
OO	O		OO
OO	O		OO
OO	O		OO

```
    2  1  0  2
  ×          4
  _____
    8  4  0  8
```

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 1
1,000 1,000	100 100	10	1 1 1 1
1,000 1,000	100 100	10	1 1 1 1
1,000 1,000	100 100	10	1 1 1 1

```
    2  2  1  4
  ×          4
  _____
    8  8  5  6
          1
```

The attendance for all 4 matches was **8,856**

4 Nijah is calculating 2,430 × 3

She makes this place value chart to help her.

Th	H	T	O
	100 100	10 10 10 10	1 1 1
	100 100	10 10 10 10	1 1 1
	100 100	10 10 10 10	1 1 1

She gets the answer 729

What mistake has Nijah made?

She hasn't put her counters in the correct columns.

What is the correct answer? **7,290**

© White Rose Maths 2019
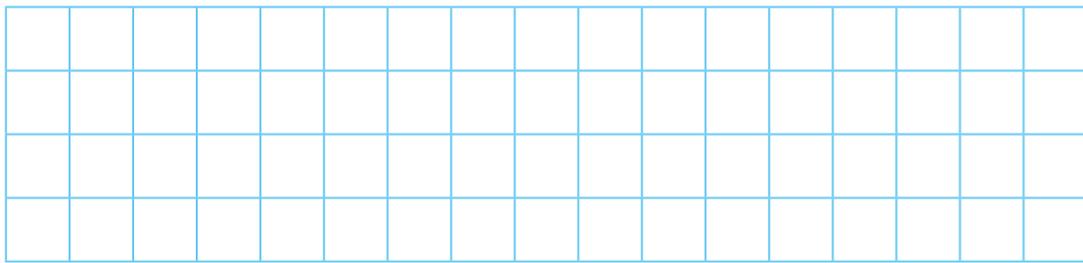
5 Complete the multiplications.

a) $3,126 \times 3 =$ | 9,378 |

c) $4,132 \times 6 =$ | 24,792 |
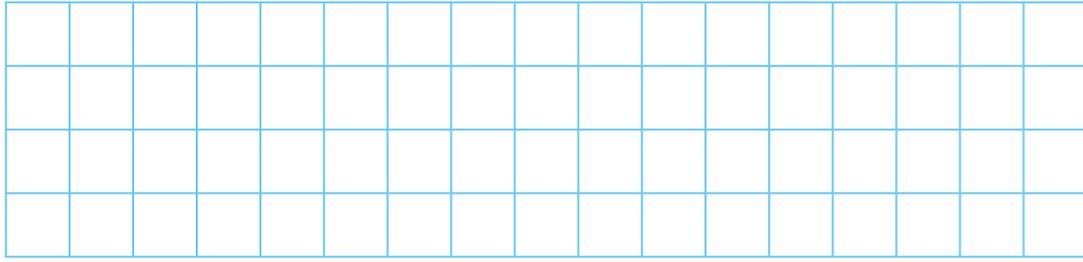
b) $4,812 \times 2 =$ | 9,624 |

d) $1,502 \times 5 =$ | 7,510 |

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

```
    7  4  2  3
×            0
─────────────
    7  4  2  3
─────────────
```

The answer is 7,423
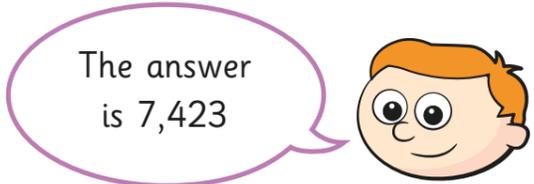
Do you agree with Ron? __No__

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

7 Work out these multiplications.

$2,846 \times 2 =$ | 5,692 |

$2,846 \times 4 =$ | 11,384 |

$2,846 \times 8 =$ | 22,768 |

What do you notice about the answers?

8

$248 \times 10 = 2,480$

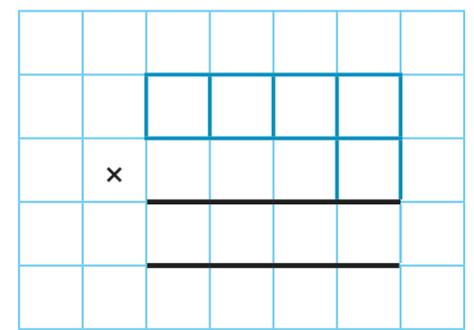Without using the formal method, how could you use this fact to calculate 248×9?

$\underline{248 \times 9 = 248 \times 10 - 248 \times 1 = 2,480 - 248, = 2,232}$

Check your answer using the formal method.

```
    2  4  8
×         9
─────────────
  2  2  3  2
     4  7
```

Which method was easier?

9 Use each digit card once to write a multiplication.

| 1 | | 2 | | 3 | | 4 | | 5 |

How many different products can you find?

Various answers.

What is the closest product to 8,000? | 8,270 |