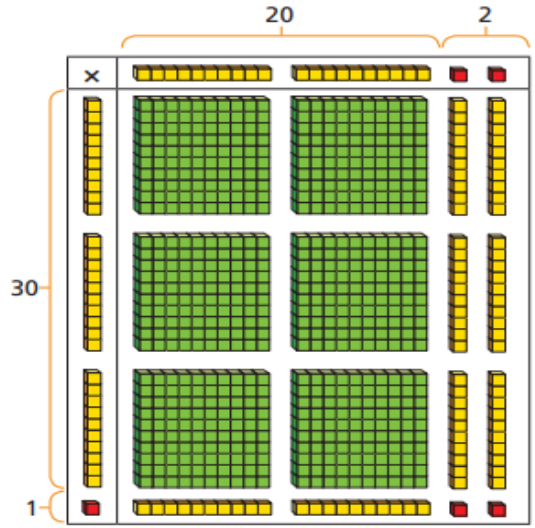
Maths Answer Pack – Week 10

Lesson 1 – Teach and Practise – Multiply 2 digits

Multiply 2-digits (area model)

1 Kim is using base 10 to work out 31 × 22

Use Kim's model to help you complete the sentences.



There are 2 ones altogether.

There are 8 tens altogether.

There are 6 hundreds altogether.

31 × 22 = 682

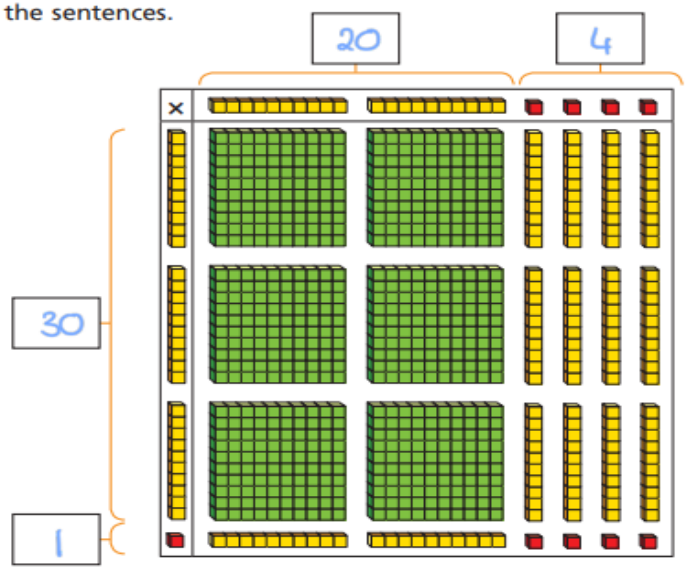
2 Use base 10 to work out the multiplications.

a) 12 × 14 = 168

b) 23 × 13 = 299

3 Amir is using base 10 to calculate 31 × 24

a) Add the missing information to the area model and complete the sentences.



There are 4 ones altogether.

There are 14 tens altogether.

There are 6 hundreds altogether.

b) Describe any exchanges you need to make.

Exchange 10 tens for 1 hundred.

c) Complete the multiplication.

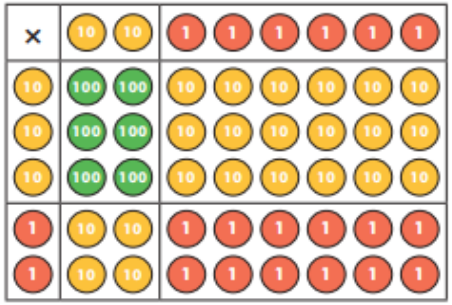
31 × 24 = 744

4 Use base 10 to work out these multiplications.

a) 25 × 15 = 375

b) 36 × 12 = 432

5 Use the place value counters to complete the multiplication grid and sentence.



×	20	6
30	600	180
2	40	12

26 × 32 = 832

6 Use an area model to help you complete the multiplication.

a) 28 × 14 = 392

×	20	8
10	200	80
4	80	32

c) 35 × 22 = 770

b) 27 × 16 = 432

×	20	7
10	200	70
6	120	42

d) 45 × 36 = 1,620

7 Complete the multiplications.

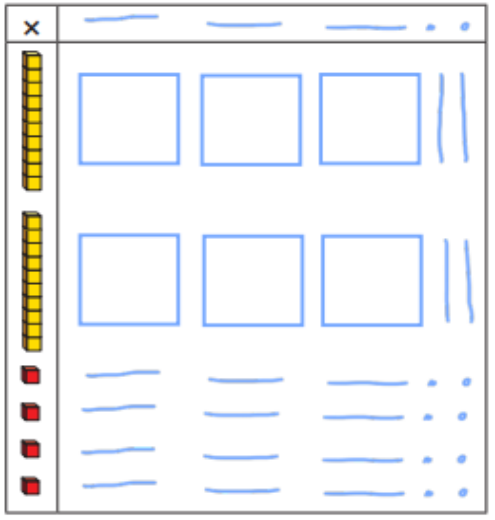
21 × 24 = 504

31 × 25 = 775

18 × 26 = 468

8 24 × 32 = 768

Complete the area model to find the missing number.



9 Use each digit card once to write a multiplication.

2	3	4	5

e.g. 23 × 45 = 1,035

How many different answers can you find?

Various answers

How many products are there between 1,000 and 1,500?

Lesson 2 – Teach and Practise – Multiplying 2 digit by 4 digit

Multiply 4-digits by 2-digits

1 Complete the multiplication.

			1	2	3	4	
	×				2	1	
			1	2	3	4	
		2	4	6	8	0	
		2	5	9	1	4	
				1			

(1,234 × 1)
(1,234 × 20)

2 Tommy is calculating 1,234 × 26

a) Complete his working out.

			1	2	3	4	
	×				2	6	
			7_1	4_2	0_2	4	
		2	4	6	8	0	
		3	2	0	8	4	
		1	1				

(1,234 × 6)
(1,234 × 20)

b) Fill in the grid to check Tommy's working is accurate.
You may use place value counters to help.

×	1,000	200	30	4
20	20,000	4,000	600	80
6	6,000	1,200	180	24

3 Rosie is calculating 2,541 × 42
Here is Rosie's working.

	2	5	4	1	
×			4	2	
	4_1	0	8	2	(2,541 × 2)
8_2	0_1	6	4		(2,541 × 40)
1_1	2	1_1	4	6	

a) Rosie has made two mistakes. What are they?

She hasn't correctly exchanged.
She has multiplied by 4 not 40

b) What is the correct answer?

106,722

4 Work out the multiplications.

a) 4,284 × 23

	4	2	8	4
×			2	3
1	2	8	5	2
8	5	6	8	0
9	8	5	3	2
	1	1		

b) 2,142 × 46

	2	1	4	2
×			4	6
1	2	8	5	2
8	5	6	8	0
9	8	5	3	2
	1	1		

What do you notice?

5 A machine makes 2,734 boxes every hour.

The machine works for 3 hours each day.

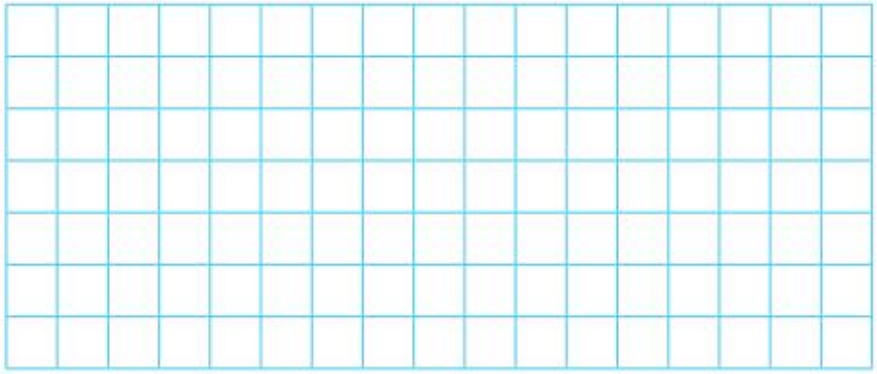
a) How many boxes will it make in 12 days?

98,424

b) Compare methods with a partner. Were there any other ways you could have worked out the answer?

6 Work out 378 × 7 × 12

Show your method clearly.



31,752

7

1	2	3	4	5	6

×

a) Using all the digit cards, create 4 different calculations and work out the answer to each.

Various answers.

b) Write your answers in ascending order.

c) What is the smallest product that can be made? 31,928

8 Amir scores 4,680 points in a computer game for 12 games in a row.

Whitney scores 2,512 points every game for 24 games.

Who scores more points? Whitney

Amir: 56,160

Whitney: 60,288

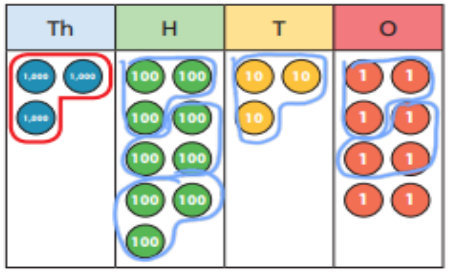
How many more? 4,128

Lesson 3 – Divide with remainders

Divide with remainders

1 **a)** Circle the groups of 3 to help complete the sentences and calculation.

The first step has been done for you.



		1	3	1	2	r 2
	3	3	9	3	8	

There is [1] group of 3 thousands.

There are [3] groups of 3 hundreds.

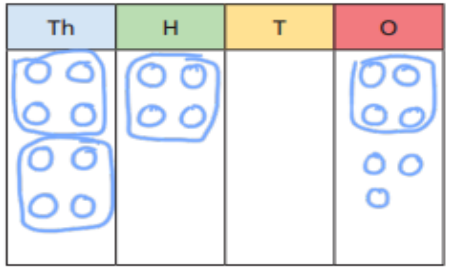
There is [1] group of 3 tens.

There are [2] groups of 3 ones.

There are [2] ones left over.

3,938 ÷ 3 = [1,312] remainder [2]

b) Use place value counters to work out 8,407 ÷ 4



		2	1	0	1 r 3
	4	8	4	0	7

8,407 ÷ 4 = [2,101] remainder [3]

2 **a)** Complete the divisions.

Use place value counters to help you.

		2	5	3	1	r 2
	3	7	5	9	5	

		2	1	4	1	r 3
	4	8	5	6	7	

		1	3	1	2	r 2
	5	6	5	6	2	

		1	3	1	1	r 2
	3	3	9	3	5	

b) Write <, > or = to complete the statements.

7,595 ÷ 3 [>] 8,567 ÷ 4

6,562 ÷ 5 [>] 3,935 ÷ 3

3 Write the calculations in the correct column of the table.

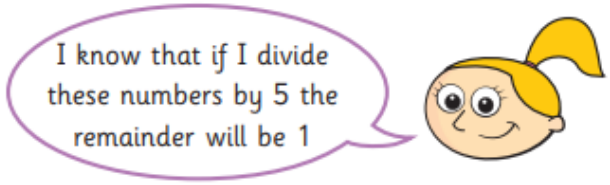
5,066 ÷ 4	9,513 ÷ 4	1,234 ÷ 4
6,562 ÷ 4	6,563 ÷ 4	9,515 ÷ 4

Remainder of 1	Remainder of 2	Remainder of 3	Remainder of 4
9,513 ÷ 4	5066 ÷ 4 6562 ÷ 4 1,234 ÷ 4	6563 ÷ 4 9,515 ÷ 4	

Are any columns empty? Talk to a partner about why this has happened.

4

7,816	7,861	6,781	1,786



Is Eva correct? Yes

How do you know?

5 There are 459 children in a school.

They are sitting at tables in groups of 7

Do you agree with Mo? NO

Explain your answer.

6 Bags of crisps are put into multipacks of 6

The multipacks are then packed into boxes of 8

Yesterday, 6,500 bags of crisps were packed.

How many boxes of crisps were packed?

135

7

2	3	4	5				
				÷			

a) How many ways can you complete the calculation using all the digit cards so that there is a remainder of 1?

Eg. 325 ÷ 4 = 81 r 1

b) What do you notice?

8 Dora is thinking of a number between 500 and 600

When she divides it by a 1-digit number it has a remainder of 4

What could Dora's number be?