

1 7. 1.2 1

LO: To compare statements and understand related calculations.

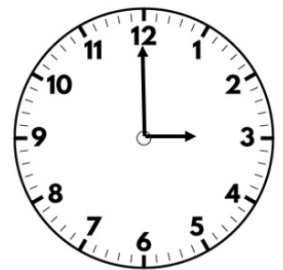
I know the symbols used for greater than, less than and equal to.

I can use my times table knowledge to calculate multiplications.

I understand that changing the order of the numbers we are multiplying, does not change the product.

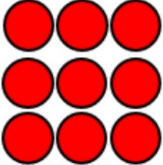
Flashback 4

Year 3 | Week 1 | Day 1



- 1) What is 3×8 ?
- 2) Calculate 8×6
- 3) Multiply four by twelve
- 4) Write down a 3-digit number with 2 in the tens column.



- 1) Here is an array. 

Write a multiplication and a division equation to represent the array.

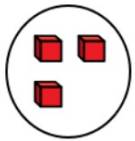
- 2) Here are some cookies. 

Write 2 multiplication and 2 division equations to represent the cookies.

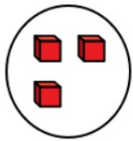
- 3) Use $6 \times 8 = 48$ to complete the equations below.

$$8 \times 6 = \square$$

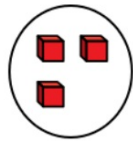
$$48 \div \square = \square$$



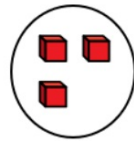
3



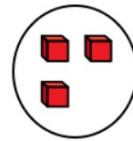
6



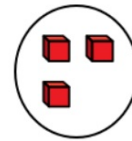
9



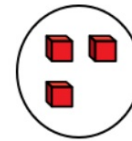
12



15

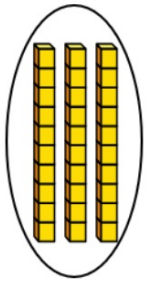


18

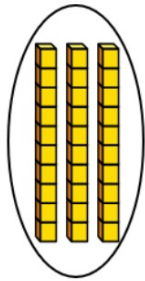


21

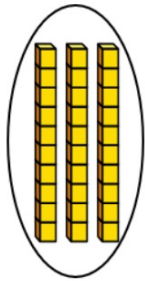
$$4 \times 30$$



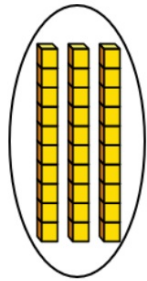
30



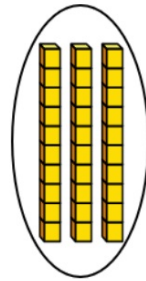
60



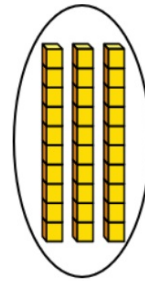
90



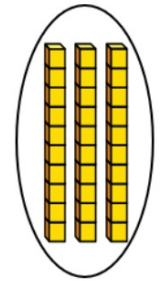
120



150

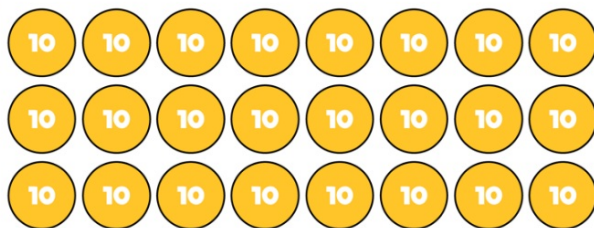
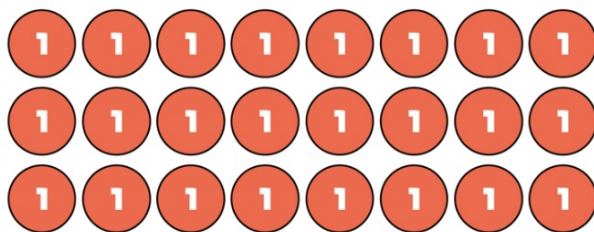


180

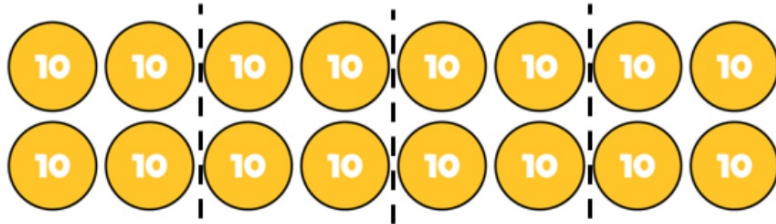
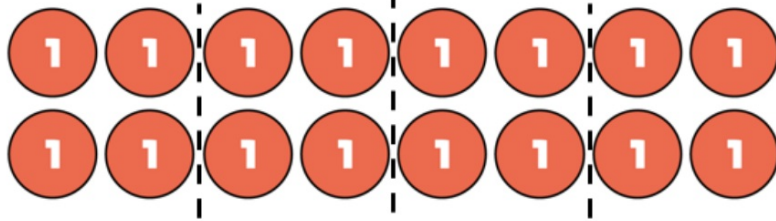


210

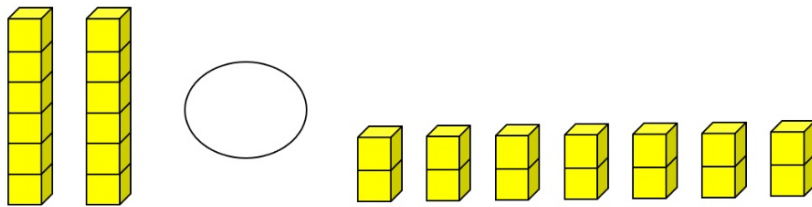
What multiplication facts are shown by the arrays?



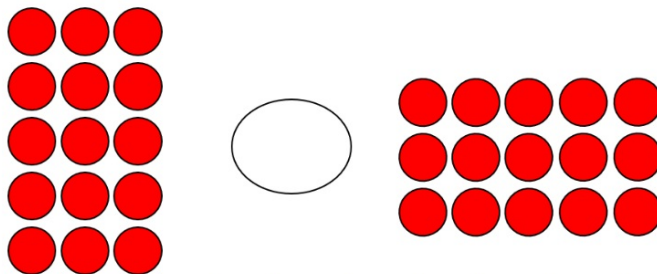
at division
cts are
own by the
ays?



Use $<$, $>$ or $=$ to complete the comparison

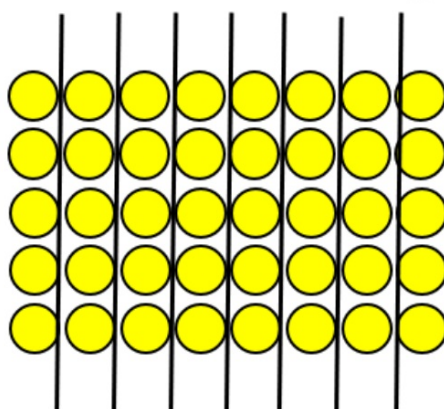


Use $<$, $>$ or $=$ to complete the comparison



Complete the comparison

$$40 \div \text{frog} = \text{frog} \times 5$$



1) Use base 10 to represent the multiplications.

Complete the calculations.

- a) 2×4 b) 5×3 c) 5×2 d) 2×8
 2×40 5×30 5×20 80×2

2) Complete the number sentences to describe the pictures.



$4 \times 5 = \square$ $20 \div 5 = \square$



$5 \times 4 = \square$ $20 \div 4 = \square$

3) Nijah makes these arrays.



Complete the number sentences.

$4 \times 3 = \square$ $4 \times 30 = \square$

What is the same about the arrays? What is different?

4) Write $<$, $>$ or $=$ to compare the arrays.



1) Use base 10 to represent the multiplications.

Complete the calculations.

- a) 2×4 b) 5×3 c) 5×2 d) 2×8
 2×40 5×30 5×20 80×2

2) Complete the number sentences to describe the pictures.



$4 \times 5 = \square$ $20 \div 5 = \square$

3) Nijah makes these arrays.



Complete the number sentences.

$5 \times 3 = \square$ $50 \times 30 = \square$

What is the same about the arrays? What is different?

5) Write <, > or = to compare the calculations.

a) 4×3 ○ 2×6 c) 5×3 ○ 3×4

b) 8×3 ○ 4×6 d) 3×4 ○ 4×5



6) Use Dora's fact to complete the calculations.

- a) 5×70 c) 50×7 e) $350 \div 5$
b) 7×5 d) $35 \div 5$ f) $350 \div 7$

4) Write <, > or = to compare the arrays.



5×2 ○ 6×2



2×6 ○ 6×2

5) Write <, > or = to compare the calculations.

a) 5×3 ○ 2×10 c) 10×3 ○ 3×10

b) 5×8 ○ 4×10 d) 3×5 ○ 4×7

7) Complete the number sentences.

a) $3 \times \square = 210$

c) $4 \times 90 = \square$

b) $240 \div 6 = \square$

d) $120 \div \square = 2$

8) Mr Jones buys 12 large jugs.

The total cost of the jugs is £240

How much does each jug cost?

How did you work this out?

9) Here are some calculation cards.



Write each calculation in the table.

Less than 6×4	Equal to 6×4	Greater than 6×4

Write one more calculation in each column.

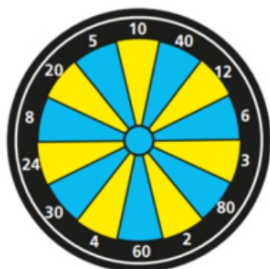
Did you have to work out all the calculations?

10) Huan throws two darts at the dartboard.

He multiplies the numbers he hits together.

Huan's score is 240

What two numbers could the darts have landed in?



How many different answers can you find?

Extension 1

Whitney says,



8×8 is greater
than two lots of
 4×8

Do you agree?

Can you prove your answer?

Extension 2

True or false?

$$6 \times 7 < 6 + 6 + 6 + 6 + 6 + 6 + 6$$

$$7 \times 6 = 7 \times 3 + 7 \times 3$$

$$2 \times 3 + 3 > 5 \times 3$$

Extension 3

Rosie has 240 cakes to sell.

She puts the same number of cakes in
each box and has no cakes left over.

Which of these boxes could she use?



True or False?

Comparing statements

The correct symbol has been used in each example.

$$8 \times 4 = 6 \times 4 + 2 \times 4$$

$$8 \times 4 < 8 \times 2 + 8 \times 3$$

$$8 \times 4 > 2 \times 4 + 2 \times 4$$

$$8 \times 4 = 8 + 8 + 8 + 8$$

1 8.1.21

LO: To multiply 2 digits by 1 digit with no exchange

I know how to partition numbers into tens and ones.

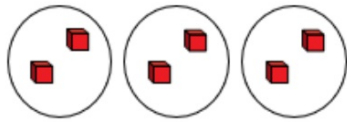
I can use base 10 to represent multiplications.

I understand how to find missing numbers in calculations.

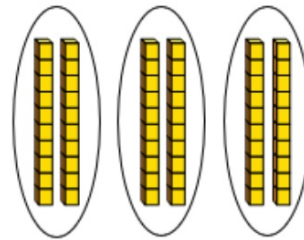
Starter

The image shows a screenshot of a digital interface for a 'Daily 10' Mental Maths Challenge. The interface is set against a light blue background with faint mathematical symbols like stars, plus signs, minus signs, multiplication signs, and division signs. At the top left, there is a purple bar with 'Level 5' and a dropdown arrow. Below this is a dark blue sidebar menu with the following options: 'Ordering', 'Addition', 'Subtraction', 'Ordering', 'Partitioning', 'Digit Values', 'Rounding', 'Multiplication', 'Division', 'Doubles/Halves', and 'Fractions'. At the top right, there is a green bar with 'Choose' and a dropdown arrow, and a close button (an 'X' in a circle). The main content area features the title 'Daily 10' in large, bold, purple letters, with 'Mental Maths Challenge' in smaller black text below it. In the center is a detailed illustration of a silver stopwatch with a white face and green hands. At the bottom right corner, there is a blue box with the 'Topmarks' logo in white text.

1) Complete the calculations



$$3 \times 2 =$$



$$3 \times 20 =$$

2) Complete the calculations

$$1 \times 4 =$$

$$1 \times 40 =$$

$$2 \times 4 =$$

$$2 \times 40 =$$

$$3 \times 4 =$$

$$3 \times 40 =$$

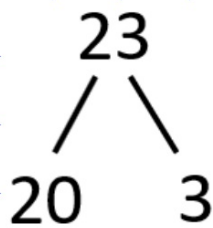
3) Complete the number track

30	60	90		150		210	240		
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Calculate 2×23 using base 10.

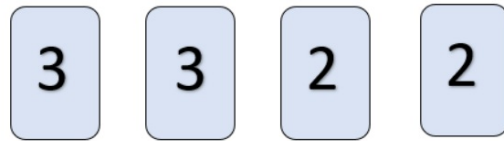
How else could we work it out?

$$23 \times 2$$



Using the two methods, calculate 3×31

Arrange 3 of the digit cards into the calculation below.



$$\square \times \square \square$$

Have a think



- What is the largest total you can make?
- What is the smallest?
- How many different totals can you make?

1) Calculate these multiplications using base 10 or partitioning.

- a) $3 \times 21 =$
- b) $4 \times 22 =$
- c) $34 \times 2 =$
- d) $13 \times 3 =$
- e) $23 \times 3 =$
- f) $4 \times 12 =$

2) Find the missing number in the multiplication.

$$\square \times 3 = 96$$

12 34 32

x			3
<hr/>			
		9	6
<hr/>			

a)

$$\square \times 2 = 68$$

23 31 34

x			2
<hr/>			
		6	8
<hr/>			

b)

1) Calculate these multiplications using base 10 or partitioning.

- a) $2 \times 21 =$
- b) $2 \times 22 =$
- c) $34 \times 2 =$
- d) $11 \times 2 =$
- e) $23 \times 2 =$
- f) $2 \times 12 =$
- g) $2 \times 14 =$
- h) $44 \times 2 =$

2) Find the missing number in the multiplication.

$$\square \times 2 = 68$$

23 31 34

a)

2 2 4 8

		1	
x			
<hr/>			

b)

3 2 6 3

		1	
x			
<hr/>			

c)

2 2 4 8

$$\begin{array}{r} 1 \square \\ \times \quad \square \\ \hline \square \square \\ \hline \end{array}$$

c)

3 2 6 3

$$\begin{array}{r} 1 \square \\ \times \quad \square \\ \hline \square \square \\ \hline \end{array}$$

d)

3)

Use 3 digit cards to complete the calculation below.

$$\square \square \times \square = 84$$



Have a think 

Which 3 cards could you use?
Can you find more than one solution?

4) Which person has got the answer wrong in each of these?

$$\begin{array}{r} 13 \\ \times 3 \\ \hline 16 \end{array}$$

$$\begin{array}{r} 13 \\ \times 3 \\ \hline 39 \end{array}$$

a)

Kayla

$$\begin{array}{r} 14 \\ \times 2 \\ \hline 28 \end{array}$$

Annie

$$\begin{array}{r} 14 \\ \times 2 \\ \hline 16 \end{array}$$

b)

Brendan

Max

c) For a) and b) explain their mistakes.

5)

- Adam saves £13 every week. How much has he saved after 3 weeks?
- Mike runs 6km every day for a fortnight. How far has he run in total?
- Ben walks 12 miles a day. How many miles does he walk in 4 days?
- A supermarket has 4 boxes of apples. Each box has 22 apples in it. If 11 people go to the supermarket to buy 9 apples each will the supermarket have enough apples?

True or False?

Related calculations

If I know $3 \times 6 = 18$, I also know...

$$3 \text{ cm} \times 6 = 18 \text{ cm}$$

$$6 \text{ litres} \times 3 = 18 \text{ litres}$$

$$3 \text{ m} \times 6 = 18 \text{ m}$$

1 9.1.21

LO: To Multiply 2 digits by 1 digit using short multiplication.

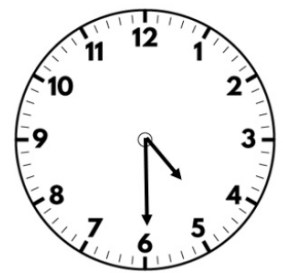
I know how to use concrete resources to help me.

I can use the column method accurately.

I understand how to exchange.

Flashback 4

Year 3 | Week 1 | Day 2



1) Compare using $<$, $>$ or $=$

$$3 \times 8 \quad \bigcirc \quad 3 \times 4$$

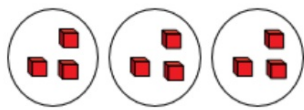
2) What is $88 \div 8$?

3) Divide 28 by 4

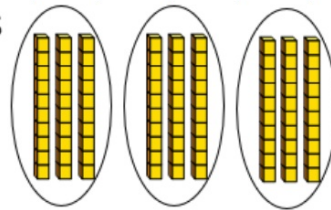
4) What is 10 more than 475?



1) Complete the calculations



$$3 \times 4 =$$



$$3 \times 30 =$$

2) Complete the calculations

$$1 \times 8 =$$

$$1 \times 80 =$$

$$2 \times 8 =$$

$$2 \times 80 =$$

$$3 \times 8 =$$

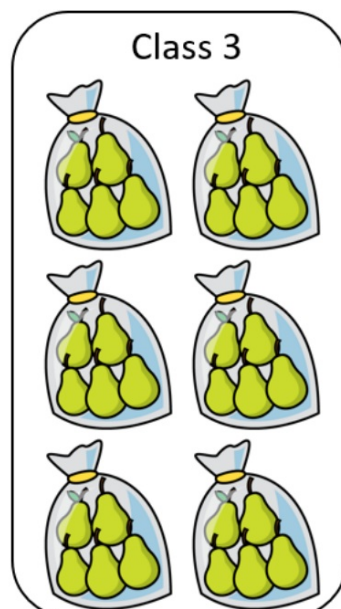
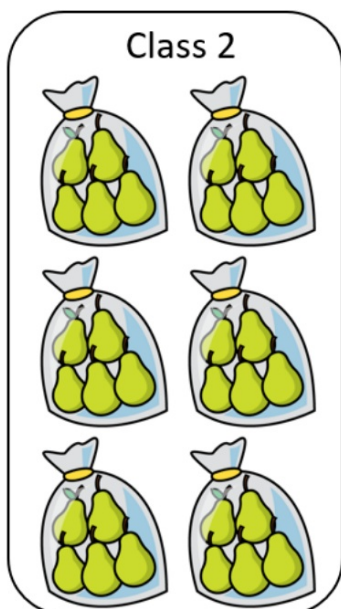
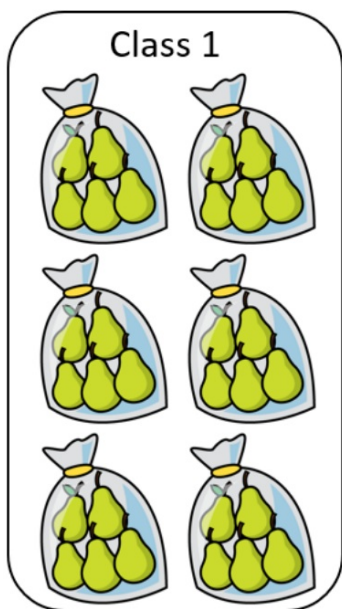
$$3 \times 80 =$$

3) Complete the number track

20	40	60		100		140	160		
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Each class has 30 pears.

How many pears are there in total?

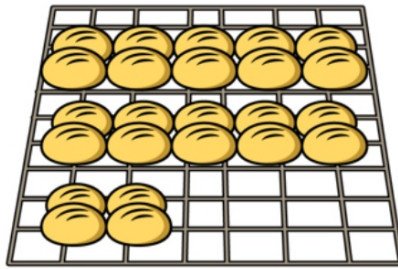
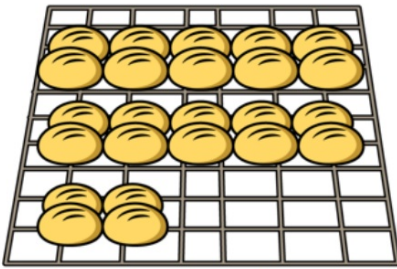


Each tray has 24 rolls.

How many rolls are there in total?

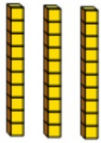

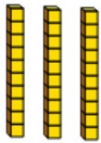

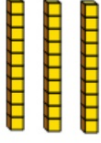

$$2 \times 20$$

$$2 \times 4$$



	T	O	
	2	4	
×		2	
	<hr/>		
	<hr/>		

32×3

T	O
	
	
	

	T	O	
	3	2	
x		3	
	<hr/>		
	<hr/>		

Complete the short multiplication.

	T	O	
×			
	<hr/>	<hr/>	
	6	8	
	<hr/>	<hr/>	

- 1 Ron, Eva and Mo each have 23 marbles.

Tens		Ones	
10	10	●	●
10	10	●	●
10	10	●	●

How many marbles are there in total?

- 2 Use the place value chart to work out 2×24 . Complete the multiplication sentences.

Tens		Ones	
10	10	1	1
10	10	1	1

- 3 Annie works out $43 \times 2 = 86$

Tens		Ones	
10	10	1	1
10	10	1	1

Tens		Ones	
4	3		
x	2		
8		6	

Talk about Annie's methods with a partner.

What is the same? What is different?

Tens		Ones	
10	10	●	●
10	10	●	●

How many marbles are there in total?

- 2 Use the place value chart to work out 2×24 . Complete the multiplication sentences.

Tens		Ones	
2	4	1	1
2	4	1	1

- 3 Annie works out $43 \times 2 = 86$

Tens		Ones	
4	3	1	1
4	3	1	1

Tens		Ones	
4	3		
x	2		
8		6	

Talk about Annie's methods with a partner.

What is the same? What is different?

- 4 Complete the multiplications.

a)

Tens		Ones	
2	4		
x	2		

b)

Tens		Ones	
4	4		
x	2		

- 5 Jack is trying to work out 34×2 using the column method.



I'm not sure what to do.

Tens		Ones	
3	4		
x	2		

Show how Jack could improve his column method and work out the answer.

4 Complete the multiplications.

a)

	T	O	
	2	4	
x		2	
<hr/>			

b)

	T	O	
	4	4	
x		2	
<hr/>			

c) 31×3

d) 42×2

Compare answers with a partner.

5 Jack is trying to work out 34×2 using the column method.



I'm not sure what to do.

		2	
x	3	4	
<hr/>			

Show how Jack could improve his column method and work out the answer.

6 One toaster costs £32
How much do 3 toasters cost?



- 7 Whitney has multiplied a 2-digit number by a 1-digit number.



I had to do
 $30 + 9 = 39$ to get
my answer.

What numbers is Whitney multiplying?

Fill in the missing digits.

	x		
		3	9

- 8 Filip used the column method to work out 41×2



I can work this
multiplication out in
my head.

		4	1
	x		2

- a) How do you think Eva will work this out in her head?
b) Tick the multiplications that you can work out in your head.

4 × 22

3 × 23

3 × 33

12 × 4

3 × 32

4 × 20

Extension

1) Alex completes the calculation:

$$43 \times 2$$

Can you spot her mistake?

	T	O
	4	3
×		2
		6
+		8
		14

2) Teddy completes the same calculation as Alex.

Can you spot and explain his mistake?

	T	O
	4	3
×		2
		6
8	0	6

3) Dexter says,



$$4 \times 21 = 2 \times 42$$

Is Dexter correct?

True or False ?

Multiply 2-digits by 1-digit (1)

If one bag costs £12 then four
of the same bags cost £46

20.1.21

LO: To multiply 2 digits by 1 digit with an exchange

I know how to partition numbers into tens and ones.

I can use base 10 to represent multiplications.

I understand how to find missing numbers in calculations.

Starter

Level 5 ▾ Ordering ▾ Choose ▾

Addition
Subtraction
Ordering
Partitioning
Digit Values
Rounding
Multiplication
Division
Doubles/Halves
Fractions

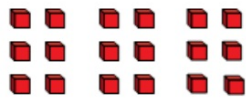
Daily 10

Mental Maths Challenge

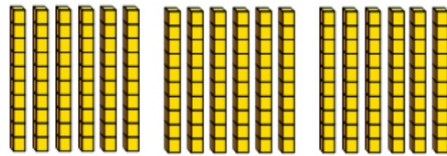
Topmarks

Complete the calculations

1)



$$3 \times 6 =$$



$$3 \times 60 =$$

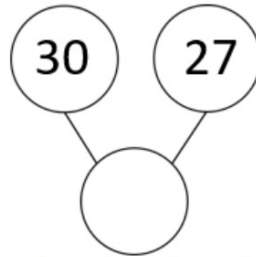
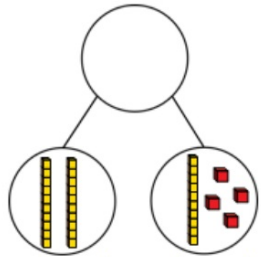
2) $5 \times 4 =$

$5 \times 40 =$

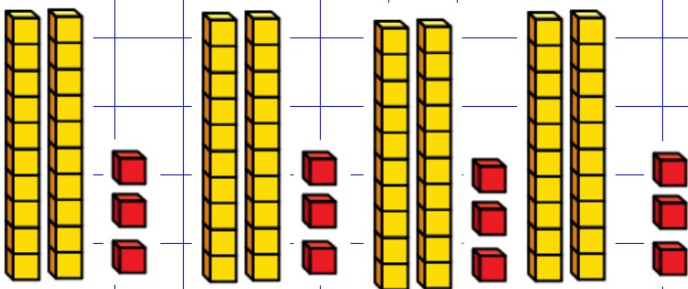
$6 \times 4 =$

$6 \times 40 =$

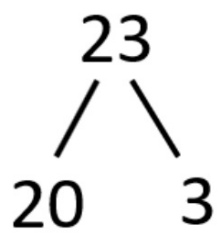
3) Complete the part-whole models



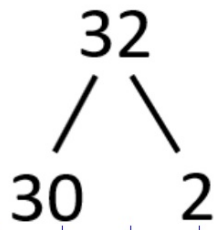
Calculate 4×23



Calculate 4×23



Calculate 5×32



Arrange the digit cards into the calculation below.

3 4 5

□ × □ □



Have a think



- How many different totals can you make?
- What is the greatest total you can make?
- What is the smallest?
- What do you notice? Does this always happen?

Large rounded rectangular box for writing answers.

1) Calculate these statements using the partitioning method.

- a) $5 \times 22 =$
- b) $34 \times 3 =$
- c) $5 \times 35 =$
- d) $18 \times 3 =$
- e) $26 \times 3 =$
- f) $4 \times 14 =$
- g) $5 \times 15 =$
- h) $6 \times 23 =$
- i) $3 \times 24 =$
- j) $19 \times 5 =$

2)

Use 3 digit cards to complete the calculation below.

$$\square \square \square \times \square = 72$$



Have a think

Which 3 cards could you use?
Can you find more than one solution?

3)

What if you used these cards?

2 6 4

$$\square \times \square \square$$

Have a think

How many different totals can you make?
What is the greatest possible total?
What is the smallest?

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1) Calculate these statements using the partitioning method.

- a) $5 \times 12 =$
- b) $26 \times 2 =$
- c) $5 \times 15 =$
- d) $18 \times 2 =$
- e) $26 \times 2 =$
- f) $5 \times 14 =$
- g) $2 \times 35 =$
- h) $2 \times 29 =$
- i) $2 \times 34 =$
- j) $19 \times 5 =$

2) Which two numbers multiply together to make 72?

$$\square \times \square = 72$$

2 36 5 10 25 17

3) 2 36 5 10 25 17

Using these numbers, how many different multiplication sentences can you make and work out?

Example: $2 \times 5 = 10$

$$\square \times \square = |$$

--	--	--	--	--

4) Fill in the missing numbers.

3 4 23 31 42

x			
	1	6	8

a)

2 4

x	

	9	2

b)

4 2

x	

	6	8



c)

5) Explain and correct the mistake.

Tens	Ones		
10	1 1 1		1 3
10	1 1 1	x	8
10	1 1 1		8 4
10	1 1 1		2
10	1 1 1		
10	1 1 1		
10	1 1 1		

6) Each child has three digit cards to try and make 130. Who can make the answer closest?

130

4	3	2		4	5	3
	x	□ □		x	□ □	
Eve		4		x	3	Abe

- 7) a) Carl travels 78 miles a day. How many miles does he drive in 9 days?
 b) Can you predict how many miles he'd travel in 10 days?
 c) What about 100?

21.1.2 1

LO: To consolidate short multiplication.

I know my times tables.

I can use a written method to complete short multiplications.

I understand how to exchange in short multiplication.

Starter

Level 5 ▾ Ordering ▾ Choose ▾

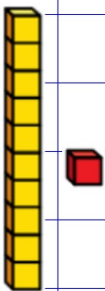
- Addition
- Subtraction
- Ordering
- Partitioning
- Digit Values
- Rounding
- Multiplication
- Division
- Doubles/Halves
- Fractions

Daily 10

Mental Maths Challenge

Topmarks

$$34 \times 3 =$$



$$\begin{array}{r} 34 \\ \times 3 \\ \hline \\ \hline \end{array}$$

$$29 \times 4 =$$



Use a dice to roll a 1 digit number and then a 2 digit number to make your multiplication question.

Use a written method to display your working out.