Multiplication and Division B

Lesson 4

Multiply a 2-digit number by a 1-digit number - no exchange

Starter

Use >, < or = to complete the statements.

5 x 4	◯	7 x 5
8 x 1	◯	2 x 4
90 x 3	◯	30 x 11
5 x 30	◯	50 x 2
40 x 6	◯	60 x 4

Starter

answers

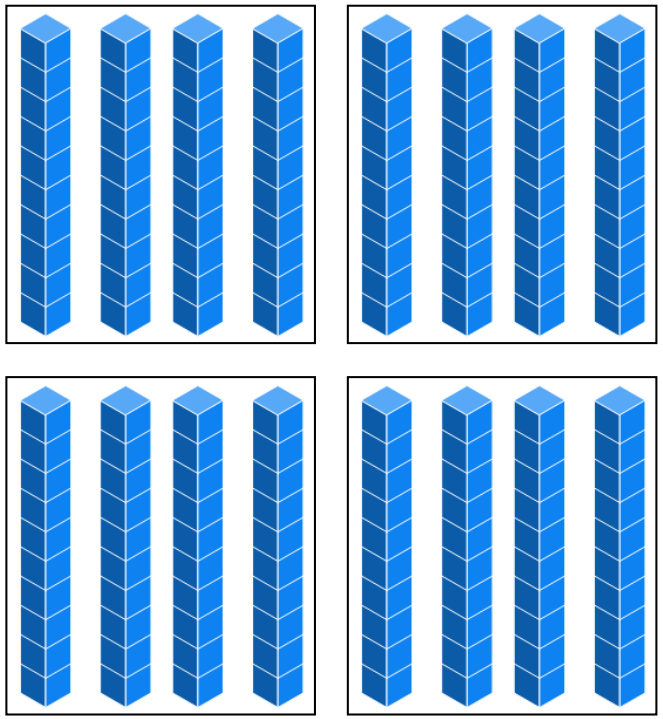
Use >, < or = to complete the statements.

5 x 4	<	7 x 5
8 x 1	=	2 x 4
90 x 3	<	30 x 11
5 x 30	>	50 x 2
40 x 6	=	60 x 4

Multiply a 2–digit number by a 1–digit number – no exchange

Here we have some base 10.
What calculation does the base 10 represent?

____ x ____



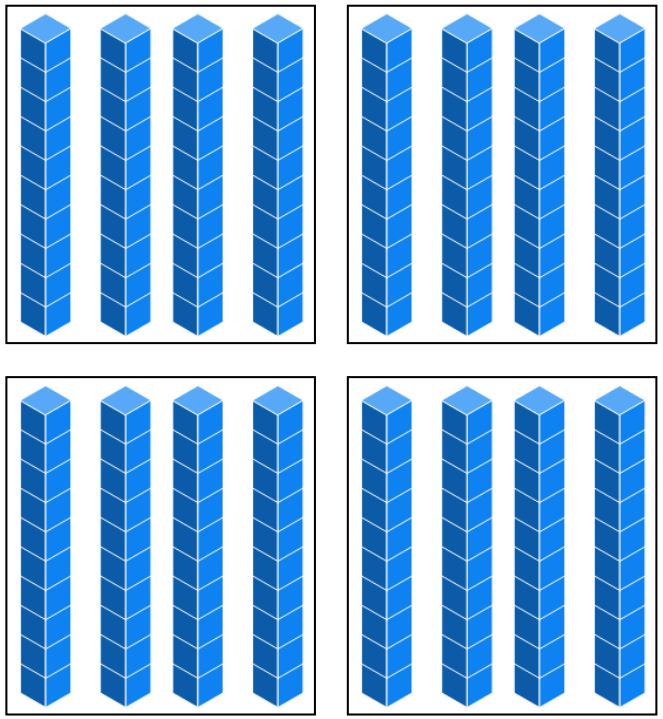
Multiply a 2–digit number by a 1–digit number – no exchange

answers

Here we have some base 10.
What calculation does the base 10 represent?

40 x 4

What knowledge could you use to solve 40 x 4?



Multiply a 2–digit number by a 1–digit number – no exchange

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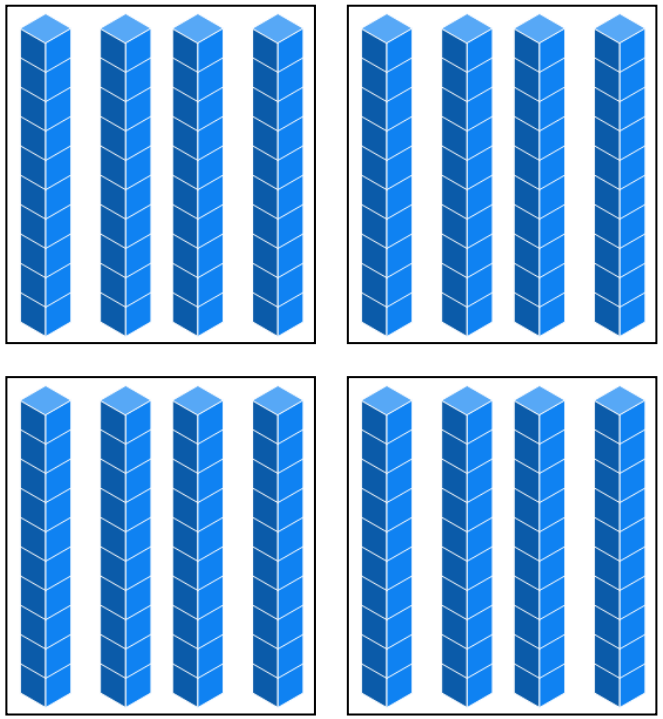


40 x 4

What knowledge could you use to solve 40 x 4?

We could use our knowledge of 4 x 4 = 16 to work out 40 x 4.

Solve the calculation:

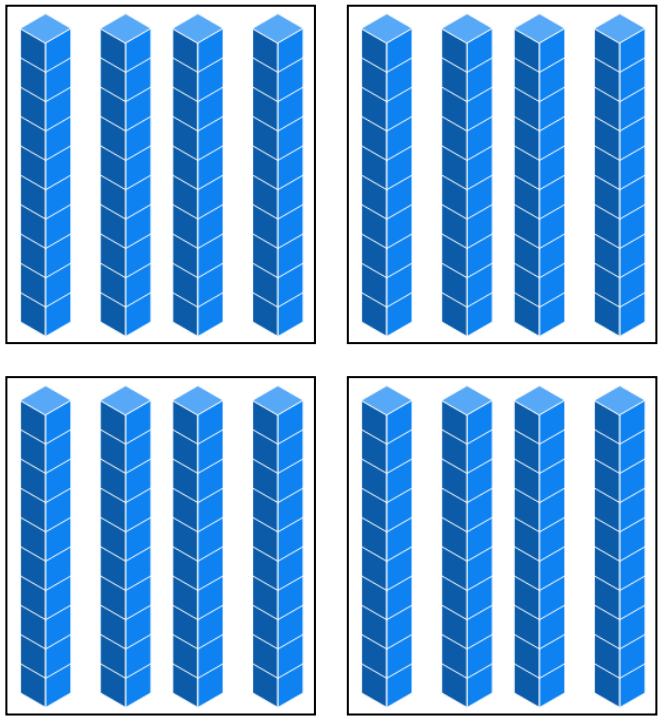
If 4 x 4 = 16

40 x 4 = ____

Multiply a 2–digit number by a 1–digit number – no exchange

answers

Here we have some base 10.
What calculation does the base 10 represent?



40 x 4

What knowledge could you use to solve 40 x 4?

We could use our knowledge of 4 x 4 = 16 to work out 40 x 4.

Solve the calculation:

If 4 x 4 = 16

40 x 4 = 160

Multiply a 2–digit number by a 1–digit number – no exchange

When multiplying a multiple of 10 by a 1-digit number,
we can think about our times tables knowledge and then make the answer 10 times greater.

4 x 4 = 16 **40 x 4 = 160**

Sometimes, we have to multiply a 2-digit number that is not a multiple of 10 by a 1-digit number.

Multiply a 2–digit number by a 1–digit number – no exchange

Take a look at this calculation:

12 x 3

To solve this calculation, we can use a method called partitioning.

This is where we break the number down into smaller numbers that are easier to work with.

How could you partition 12 into tens and ones?

Multiply a 2–digit number by a 1–digit number – no exchange

answers

Take a look at this calculation:

12 x 3

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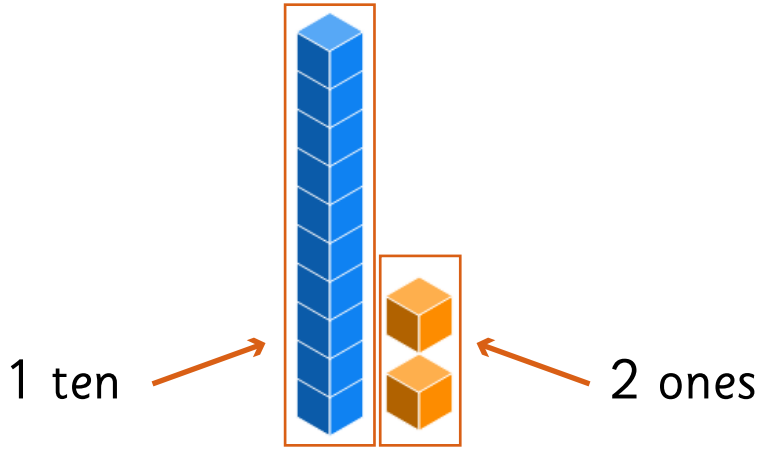
How could you partition 12 into tens and ones?

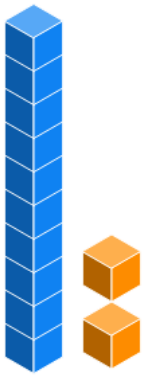
There is 1 ten and 2 ones in 12.



Multiply a 2–digit number by a 1–digit number – no exchange

We know there is 1 ten and 2 ones in 12.

How can we use this work out 12 x 3?

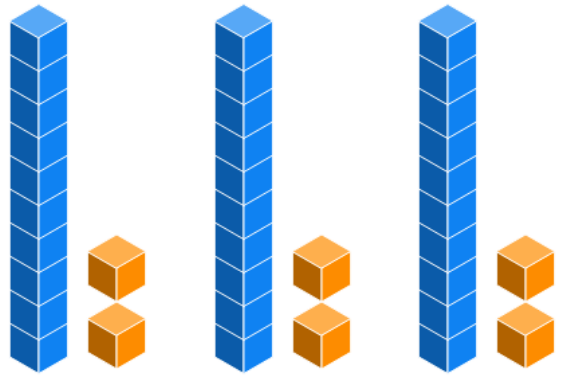


Multiply a 2–digit number by a 1–digit number – no exchange

We know there is 1 ten and 2 ones in 12.

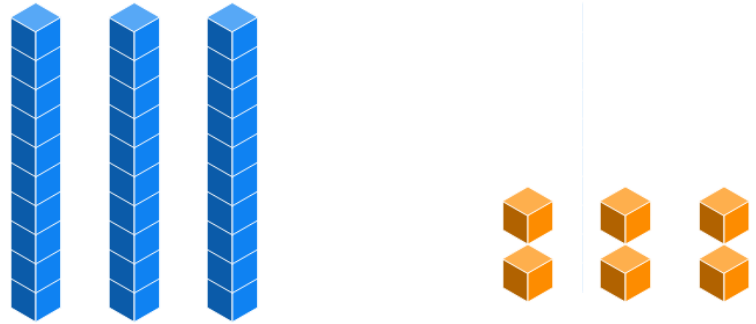
How can we use this work out 12 x 3?

We can multiply the tens and the ones by 3.



_____ ten multiplied by _____ is equal to _____

_____ ones multiplied by _____ is equal to _____



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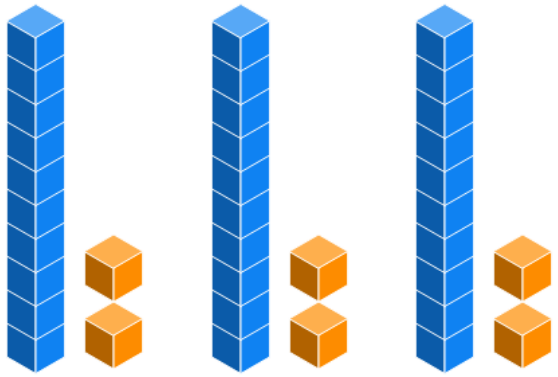
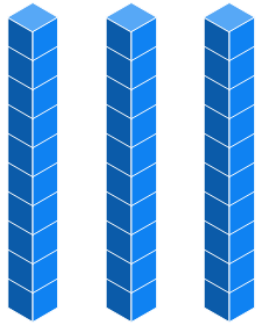


__1__ ten multiplied by __3__ is equal to __30__

__2__ ones multiplied by __3__ is equal to __6__

What do we need to do now to work out the final answer?



10 x 3 = 30

2 x 3 = 6

Multiply a 2–digit number by a 1–digit number – no exchange

answers

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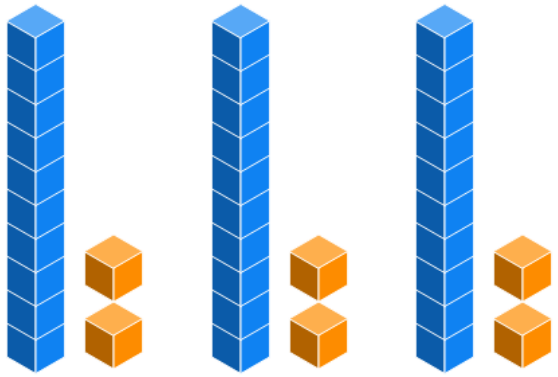
How can we use this work out 12 x 3?

We can multiply the tens and the ones by 3.



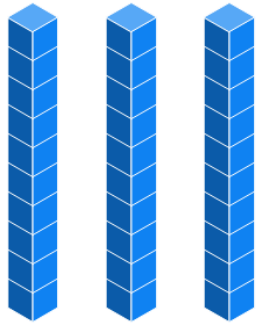
__1__ ten multiplied by __3__ is equal to __30__

__2__ ones multiplied by __3__ is equal to __6__

What do we need to do now to work out the final answer?

Add them together.

30 + 6 = 36, so 12 x 3 = 36



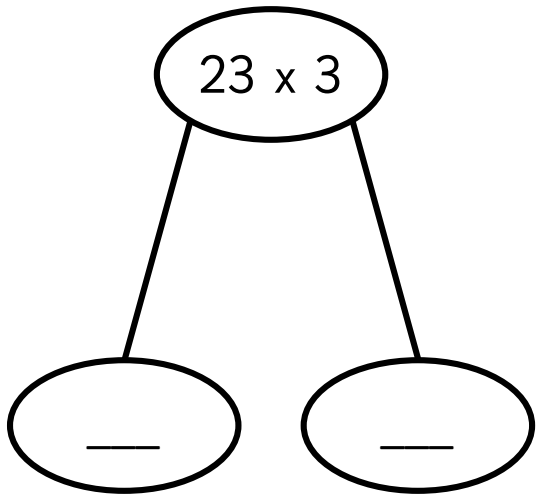
10 x 3 = 30

2 x 3 = 6

Multiply a 2–digit number by a 1–digit number – no exchange

Oscar is using the partitioning method to work out 23 x 3.

He represents the calculation using a part-whole model.



How can he partition the 2-digit number into tens and ones?

Complete the sentences below to solve the calculation:

_____ tens multiplied by _____ is equal to _____

_____ ones multiplied by _____ is equal to _____

_____ + _____ = _____

So, _____ multiplied by _____ is equal to _____

Multiply a 2–digit number by a 1–digit number – no exchange

answers

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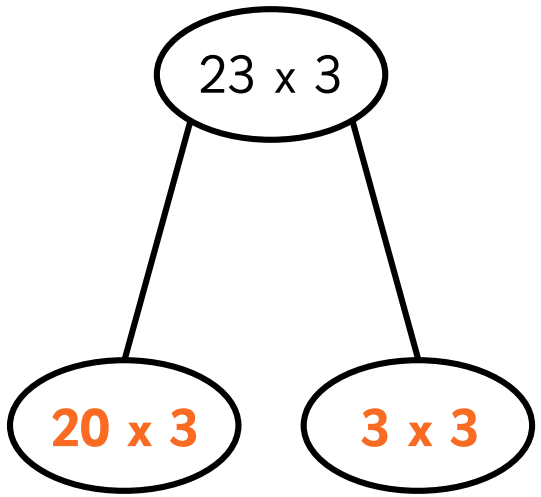


How can he partition the 2-digit number into tens and ones?

Complete the sentences below to solve the calculation:

__2__ tens multiplied by __3__ is equal to __60__

__3__ ones multiplied by __3__ is equal to __9__

__60__ + __9__ = __69__

So, __23__ multiplied by __3__ is equal to __69__

Multiply a 2–digit number by a 1–digit number – no exchange

Use your preferred method to work out these calculations:

1) 21 x 4 = _____

2) 61 x 2 = _____

3) 52 x 3 = _____

4) 33 x 3 = _____

Multiply a 2–digit number by a 1–digit number – no exchange

answers

Use your preferred method to work out these calculations:

1) 21 x 4 = 84 — 20 x 4 + 1 x 4 = 80 + 4 = 84

2) 61 x 2 = 122 — 60 x 2 + 1 x 2 = 120 + 2 = 122

3) 52 x 3 = 156 — 50 x 3 + 2 x 3 = 150 + 6 = 156

4) 33 x 3 = 99 — 30 x 3 + 3 x 3 = 90 + 9 = 99

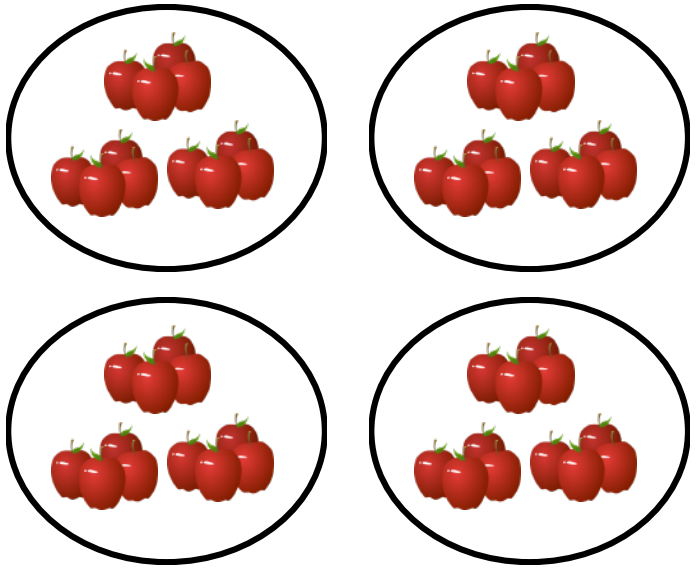
Problem solving

Pearl is selling apples.

There are 12 apples in one bag.

She sells 4 bags of apples.

How many apples did she sell altogether?



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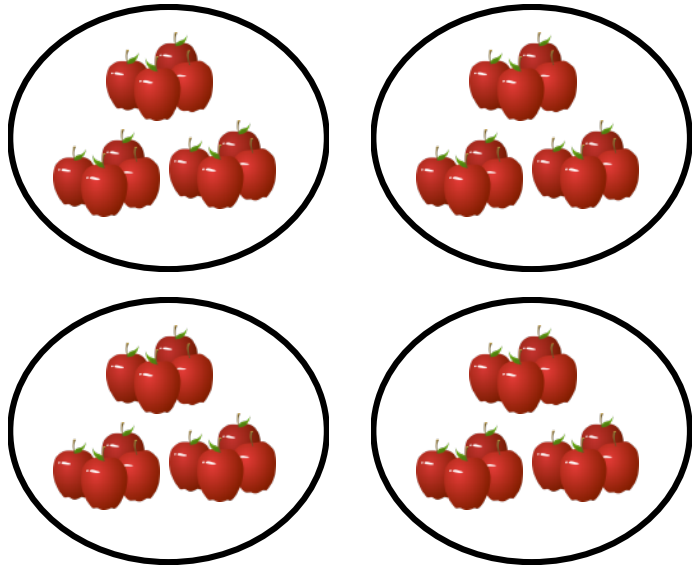

10 x 4 = 40
2 x 4 = 8
40 + 8 = 48

Pearl sold 48 apples altogether.

Your turn! Try the worksheet.

Multiply a 2-digit number by a 1-digit number – no exchange

2+2=4

Fluency

GD

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1) Complete the calculati

34 x 2 = ____

____ x 2 + ____ x 2 =

Multiply a 2-digit number by a 1-digit number – no exchange

Concrete

WT

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1) Use the place value counters

10

10

Multiply a 2-digit number by a 1-digit number – no exchange

2+2=4

Fluency

E

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1) 3 children each have £22.

tens	ones

How much money do they have altogether?

3 x 2 = ____

3 x 20 = ____

____ + ____ = ____

3 x 22 = ____

Multiply a 2-digit number by a 1-digit number – no exchange

2+2=4

Fluency

GD

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2) Solve these multiplicat

a) 32 x 2 = ____

b) 43 x 2 = ____

c) 21 x 4 = ____

d) 33 x 3 = ____

Multiply a 2-digit number by a 1-digit number – no exchange

2+2=4

Fluency

WT

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2) Match each representation to

10 10 1

10 10 1

10 10 1

10 10 10

10 10 10

10 10 10

10 10 10

Multiply a 2-digit number by a 1-digit number – no exchange

2+2=4

Fluency

E

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2) Solve these multiplications.

12 x 3 = ____

23 x 3 = ____

20 x 3 = ____

22 x 4 = ____

11 x 7 = ____

Multiply a 2-digit number by a 1-digit number – no exchange

3) Is this comparison st

Multiply a 2-digit number by a 1-digit number – no exchange

3) Draw place value counters

Multiply a 2-digit number by a 1-digit number – no exchange

3) Match the calculation to the correct representation.

33 x 3

42 x 2

21 x 4