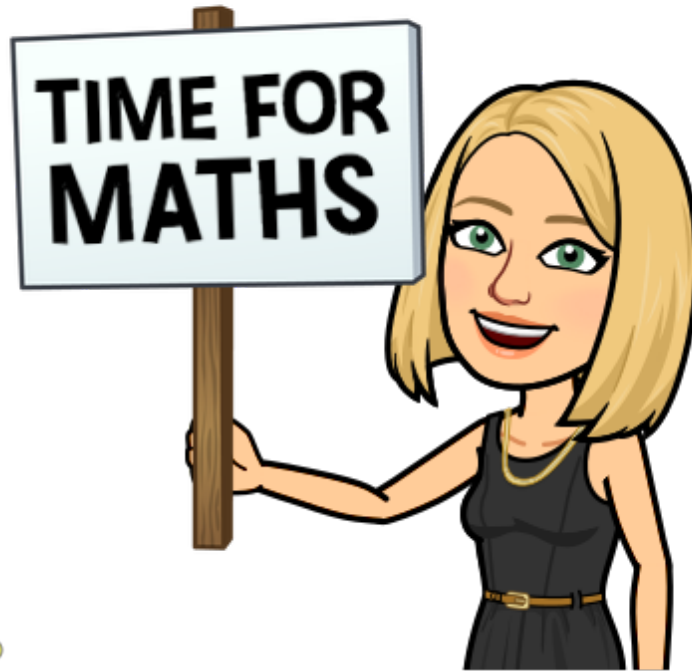


Year 2 Multiplication Word Problems



Success criteria:

I can work out simple 2s, 5s, and 10s multiplication word problems.
I can draw arrays or use knowledge of my time tables to help me.

Our mathematical vocabulary

Multiplication Symbol



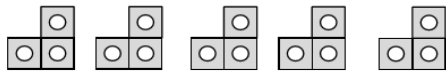
We use this symbol to show we are **multiplying** (adding equal groups of numbers).

Multiplication & Division

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Multiply

To add equal groups of numbers.



$$5 \times 3 = 15$$

There are 5 lots of 3s.

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Arrays



These arrays show
 $5 \times 3 = 15$



Arrays are objects or shapes in rows and columns.
They help us to multiply.

Multiplication & Division

Commutative Law

When you multiply numbers, you will get the same answer when you swap them around.

$$5 \times 3 = 15$$

$$3 \times 5 = 15$$

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Two Times Tables

Repeated addition in groups of 2s.
We should learn our 2 times tables up to 12×2 .

$$1 \times 2 = 2$$

$$2 \times 2 = 4$$

$$3 \times 2 = 6$$

$$4 \times 2 = 8$$

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Five Times Tables

Repeated addition in groups of 5s.
We should learn our 5 times tables up to 12×5 .

$$1 \times 5 = 5$$

$$2 \times 5 = 10$$

$$3 \times 5 = 15$$

$$4 \times 5 = 20$$

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Ten Times Tables

Repeated addition in groups of 10s.
We should learn our 10 times tables up to 12×10 .

$$1 \times 10 = 10$$

$$2 \times 10 = 20$$

$$3 \times 10 = 30$$

$$4 \times 10 = 40$$

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Rapid Recall Revision Tasks

$$24 + 37 =$$

$$28 - 19 =$$

$$4 \times 10 =$$

$$3 + 6 + 7 =$$

$$11 \times 5 =$$

Why not try Hit the button at <https://www.topmarks.co.uk/maths-game/hit-the-button>
You could practise your number bonds and doubles as well.

Try to learn your:

2 times table

5 times table

10 times table

3 x table

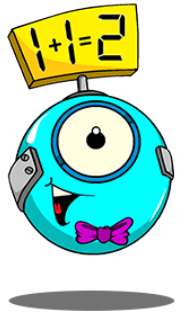


It's really important that you practise your times tables every day as they will help you with lots of the maths you will meet in KS2.

Anchor task

Jack's pet lizard eats 2 worms a day. How many worms will he eat in a week?

Don't forget to show the commutative multiplication sentence.



Challenge: How many worms will he eat in 3 weeks?



How could we solve this? Talk to your grown up about your ideas.

Review



Jack's pet lizard eats 2 worms a day. How many worms will he eat in a week?

We need to work out what is happening in this story.

The pet lizard is eating 2 worms every day for 1 week.

How many worms does he eat?

A week is 7 days long.

If he eats 2 worms a day that is 7 lots of 2.

7 lots of 2 is the same as 7×2 .

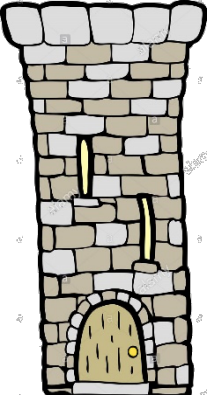
$$7 \times 2 = 14$$

Jack's lizard eats 14 worms in 1 week.

You could draw an array to help you or pictures of equal groups.

I used my 2 times table to help me solve this.

Guided task

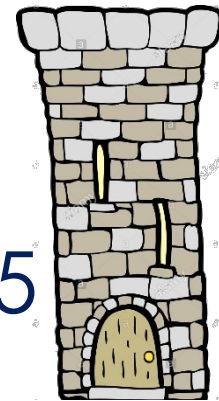


Peter builds a tower which is 10cm tall.
Joe's tower is 5 times taller. How tall is Joe's tower?



Talk to your grown up about how you could solve this.
Could you use your times tables to help you?

Guided task



Peter builds a tower which is 10cm tall. Joe's tower is 5 times taller. How tall is Joe's tower?

You could draw an array to help you or pictures of equal groups.

Read the story and find a picture in your head of 2 towers. One Tower is 10cm tall and the other is 5 times taller.

To find out how tall Joe's tower is, I need to work out what number is 5 times bigger than 10.

I can multiply.

$$5 \times 10 = 50$$

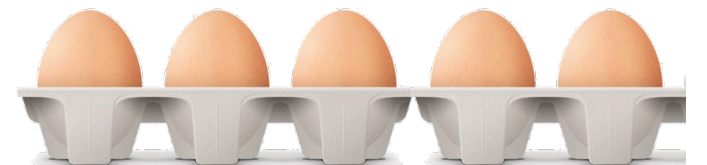
Joe's tower is 50cm tall.

Guided task

There are 5 eggs in each box. How many eggs are there in 7 boxes?

Talk to your grown up about how you could solve this.

Could you use your times tables to help you?



Guided task

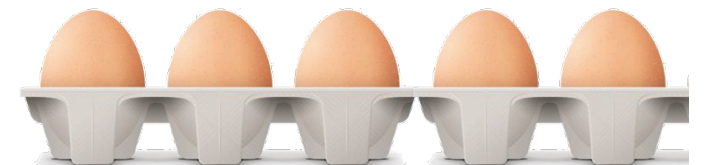
There are 5 eggs in each box. How many eggs are there in 7 boxes?

Read the story and picture 7 boxes of 5 eggs in your head. That's the same as saying 7 lots of 5.

$$7 \text{ lots of } 5 = 7 \times 5$$

$$7 \times 5 = 35$$

You could draw an array to help you or pictures of equal groups.



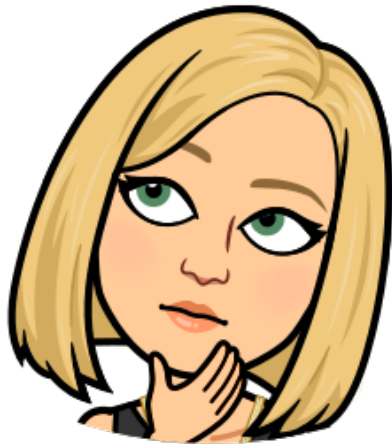
Now try this

There are 12 children at a party. They each eat 2 cakes. How many cakes are eaten altogether?



Remember:

You could draw an array to help you or pictures of equal groups.



Now try this

There are 12 children at a party. They each eat 2 cakes. How many cakes are eaten altogether?



12 children and 2
cakes.

12 lots of 2

$$12 \times 2 = 24$$

24 cakes are eaten
altogether.



Independent Practice

Solving word problems.

Your task is to solve the multiplication problems on the next pages. You must write a word sentence to explain your answer as well as show the number sentence. **Don't forget to show the commutative multiplication sentence too!**

Example:

I have 4 bags of sweets. There are 5 sweets in each bag. How many sweets do I have altogether?

$4 \times 5 = 20$. Number sentence

I have 20 sweets altogether. Word sentence

$5 \times 4 = 20$ Commutative sentence

Challenge: can you create your own multiplication word problem for a friend?



Independent Practice

One spider has 8 legs. How many legs will 5 spiders have? ___ x ___ = ___	One spider has 8 legs. How many legs will 10 spiders have? ___ x ___ = ___
There are 7 wheels on one car. How many wheels will there be on 5 cars? ___ x ___ = ___	There are 9 wheels on one car. How many wheels will there be on 5 cars? ___ x ___ = ___
There are 7 days in one week. How many days are there in 2 weeks?	There are 7 days in one week. How many days are there in 10 weeks?
There are 10 sweets in a packet. How many sweets will be in 9 packets?	There are 6 sweets in a packet. How many sweets will be in 5 packets?
4 children can sit at one table. How many children can sit at 5 tables?	There are 3 cats in one basket. How many cats are there in 5 baskets.
One butterfly has 2 wings. How many wings will 9 butterflies have?	There are 10 crayons in one pack. How many crayons in 11 packs?

Challenge:

Which has **more**?

4 bags of sweets with 5 in each or **3 bags of sweets with 10 in each**?
your answer.









Explain

$$4 \times 5 = 20 \quad 3 \times 10 = 30$$

If you're finding things tricky...



<p>A flower has 5 petals. How many petals have 2 flowers got?</p>  <p>___ + ___ = ___</p>	<p>A flower has 5 petals. How many petals have 3 flowers got?</p>  <p>___ + ___ + ___ = ___</p>
<p>A flower has 5 petals. How many petals have 4 flowers got?</p> <p>_____</p>	<p>A flower has 5 petals. How many petals have 5 flowers got?</p> <p>_____</p>
<p>There are 3 packets of crayons and 10 in each pack. How many crayons altogether? _____</p>  <p>___ + ___ + ___ = ___</p>	<p>There are 4 packets of crayons and 10 in each pack. How many crayons altogether? _____</p>  <p>___ + ___ + ___ + ___ = ___</p>
<p>There are 5 packets of crayons and 10 in each pack. How many crayons altogether? _____</p> <p>_____</p>	<p>There are 6 packets of crayons and 10 in each pack. How many crayons altogether? _____</p> <p>_____</p>
<p>One boy has 2 legs. How many legs will 3 boys have? _____</p>  <p>___ + ___ + ___ = ___</p>	<p>One boy has 2 legs. How many legs will 4 boys have? _____</p>  <p>___ + ___ + ___ + ___ = ___</p>

<p>One boy has 2 legs. How many legs will 5 boys have? _____</p> <p>_____</p>	<p>One boy has 2 legs. How many legs will 6 boys have? _____</p> <p>_____</p>
---	---



Which has more?

4 bags of sweets with 5 in each or 3 bags of sweets with 10 in each?

Draw your reasoning and write repeated addition calculations.



If you want a challenge...

The 5 Times Table



Aman

$$0 \times 5 = 5$$

$5 \times 3 = 15$ is the same as $15 = 5 \times 3$.

Jin



Alice

All the multiples of 5 have 0 or 5 ones.

Do you agree with the children?
Explain your answer.

The 5 Times Table



At the café, all hot chocolate toppings are 5p.



Alice chose cream, a flake and strawberry sauce.
Aman asked for marshmallows, fudge, cream and nuts.
Jin had all the toppings.

Write a calculation for each child to show how much each of them spent.

Alice's mum spent 25p on toppings.

Aman's dad spent 30p on toppings.

Jin's Grandma spent 10p on toppings.



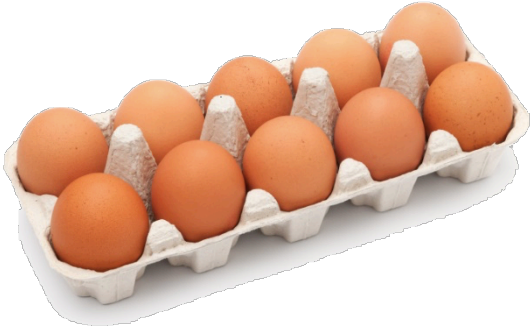
How many toppings did they each have?

Write a calculation for each adult.

What toppings would you have?

Work out the cost.

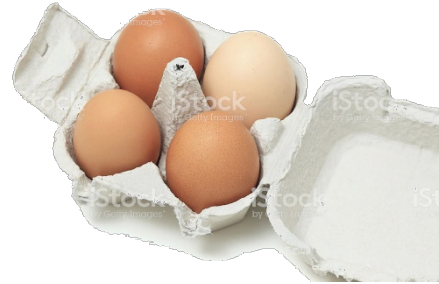
Review



3×3



2×6



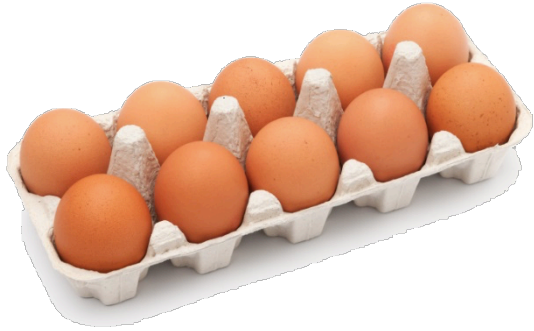
2×3



2×2

Match the picture to the multiplication.

Answers



$$2 \times 6$$



$$2 \times 3$$



$$2 \times 2$$



$$3 \times 3$$



THE ANSWERS



Rapid Recall Revision Tasks

$$24 + 37 = 61$$

$$28 - 19 = 9$$

$$4 \times 10 = 40$$

$$3 + 6 + 7 = 16$$

$$11 \times 5 = 55$$

Why not try Hit the button at <https://www.topmarks.co.uk/maths-game/hit-the-button>
You could practise your number bonds and doubles as well.

Try to learn your:

2 times table

5 times table

10 times table

3 x table

It's really important that you practise your times tables every day as they will help you with lots of the maths you will meet in KS2.

One spider has 8 legs. How many legs will 5 spiders have? $8 \times 5 = 40$	One spider has 8 legs. How many legs will 10 spiders have? $8 \times 10 = 80$
There are 7 wheels on one car. How many wheels will there be on 5 cars? $7 \times 5 = 35$	There are 9 wheels on one car. How many wheels will there be on 5 cars? $9 \times 5 = 45$
There are 7 days in one week. How many days are there in 2 weeks? $7 \times 2 = 14$	There are 7 days in one week. How many days are there in 10 weeks? $7 \times 10 = 70$
There are 10 sweets in a packet. How many sweets will be in 9 packets? $9 \times 10 = 90$	There are 6 sweets in a packet. How many sweets will be in 5 packets? $6 \times 5 = 30$
4 children can sit at one table. How many children can sit at 5 tables? $4 \times 5 = 20$	There are 3 cats in one basket. How many cats are there in 5 baskets. $3 \times 5 = 15$
One butterfly has 2 wings. How many wings will 9 butterflies have? $9 \times 2 = 18$	There are 10 crayons in one pack. How many crayons in 11 packs? $10 \times 11 = 110$

Challenge:

Which has **more**?

4 bags of sweets with 5 in each or **3 bags of sweets with 10 in each**? Explain your answer.

$4 \times 5 = 20 \quad 3 \times 10 = 30$



Explain

Aman is incorrect. Any number multiplied by zero gives the answer zero.



Jin is correct. The equals sign means that both sides are equal to one another so it doesn't matter if it is at the beginning or end of the calculation so long as the sides are equal.

Alice is correct. All the multiples of five have zero or five ones.

Alice: $3 \times 5p = 15p$

Aman: $4 \times 5p = 20p$

Jin: $6 \times 5p = 30p$


Mum: $25p = 5 \times 5p$

Dad: $30p = 6 \times 5p$

Grandma: $10p = 2 \times 5p$

Children choose a number of toppings and write a corresponding calculation to work out the total cost.




A flower has 5 petals.
How many petals have 2 flowers got?

 $2 \times 5 = 10$


A flower has 5 petals.
How many petals have 3 flowers got?

 $3 \times 5 = 15$

A flower has 5 petals.
How many petals have 4 flowers got?
 $4 \times 5 = 20$

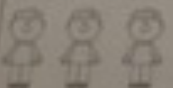
A flower has 5 petals.
How many petals have 5 flowers got?
 $5 \times 5 = 25$


There are 3 packets of crayons and 10 in each pack.
How many crayons altogether? 30

 $10 + 10 + 10 = 30$

There are 4 packets of crayons and 10 in each pack.
How many crayons altogether? 40

 $10 + 10 + 10 + 10 = 40$

There are 5 packets of crayons and 10 in each pack.
How many crayons altogether? _____
 $5 \times 10 = 50$

There are 6 packets of crayons and 10 in each pack.
How many crayons altogether? _____
 $6 \times 10 = 60$

One boy has 2 legs.
How many legs will 3 boys have? _____

 $2 \times 2 \times 2 = 6$

One boy has 2 legs.
How many legs will 4 boys have? _____

 $2 \times 2 \times 2 \times 2 = 8$

One boy has 2 legs.
How many legs will 5 boys have? _____
 $5 \times 2 = 10$

One boy has 2 legs.
How many legs will 6 boys have? _____
 $6 \times 2 = 12$

2

Which has more?

4 bags of sweets with 5 in each or 3 bags of sweets with 10 in each?

Draw your reasoning and write repeated addition calculations.

 $5 + 5 + 5 + 5 = 20$

 $10 + 10 + 10 = 30$



MATHS
STARS

