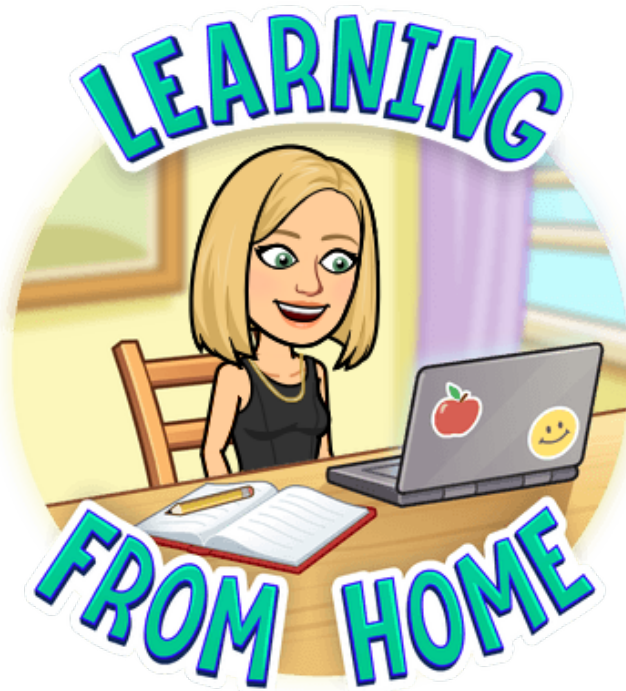


Year 2 Maths

Making equal groups and adding them
28.01.21

Today's learning will build on our activities yesterday. You will learn to make equal groups. This is an important step in mastering multiplication.



Fluency Revision

Complete these calculations; Show how you worked them out:

$$27 + 56 =$$

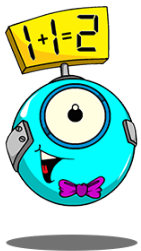
$$98 - 32 =$$

$$59 + 11 =$$

$$65 - 42 =$$

$$32 + 34 =$$

Mrs. Riley made 31 cup cakes. Niamh ate 16 of them. How many cup cakes were left?

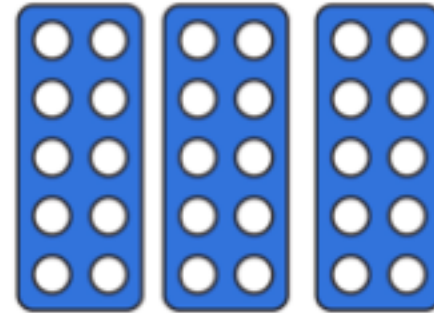
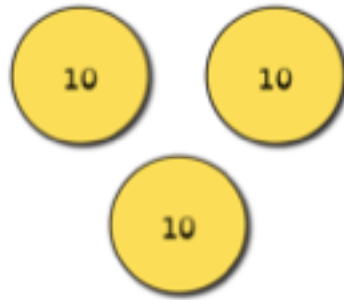


Write a number story for 2 of the calculations.



Anchor Task

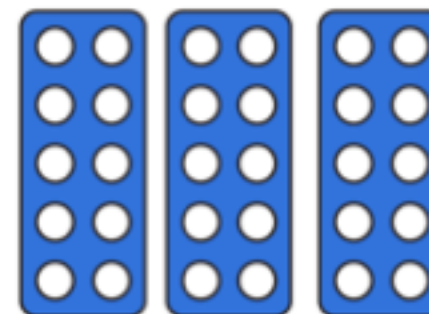
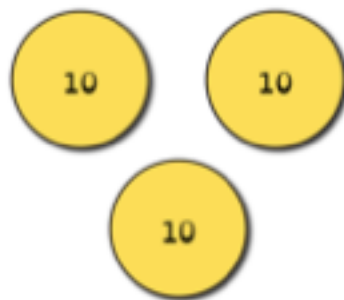
Which one doesn't belong?



Explain your answer.

Anchor Task

Which one doesn't belong?



Explain your answer.

The £10 note representation doesn't belong as it shows four lots of £10, whereas the other representations all show three equal groups of 10.

Vocabulary

Multiplication

Year 2

Equal Groups



$$5 \times 3 = 15$$

There are 5 groups with the same amount in each group.
They are equal groups.

masterthecurriculum.co.uk

Multiplication

Year 2

Repeated Addition



$$3 + 3 + 3 + 3 + 3$$

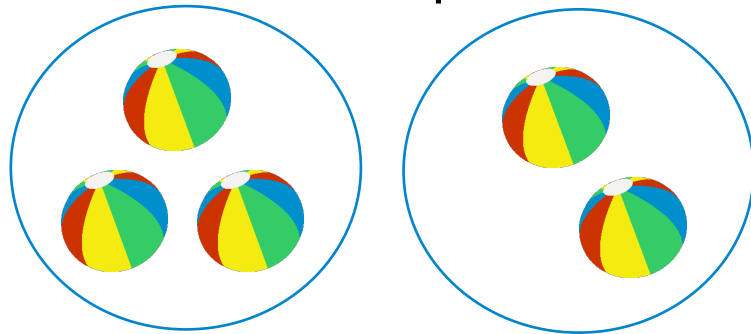
Adding the same number again and again.

masterthecurriculum.co.uk

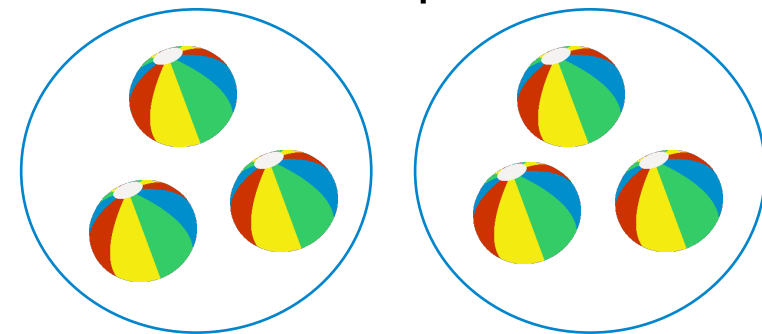
Recap

Which group is equal?
Talk to your grown up to explain how you know.

Group A



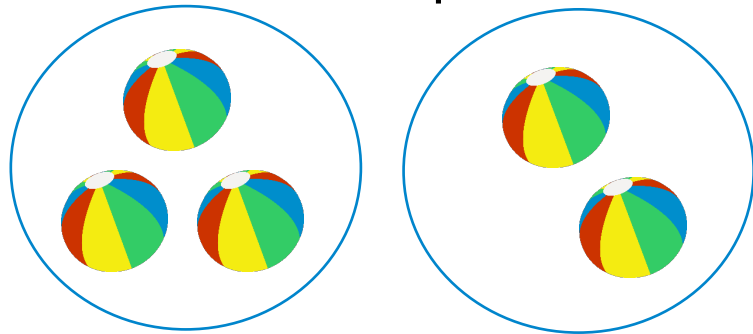
Group B



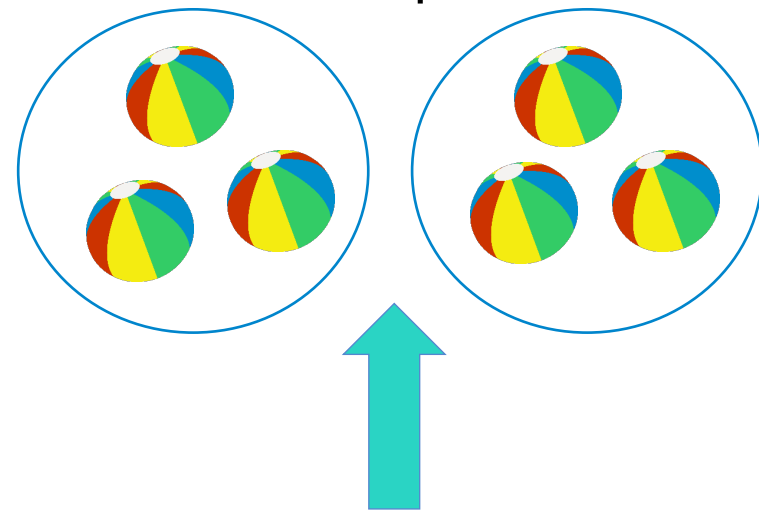
Recap

Group B is equal as it shows 2 groups of 3.
The groups are equal if they have the same
amount in each group.

Group A



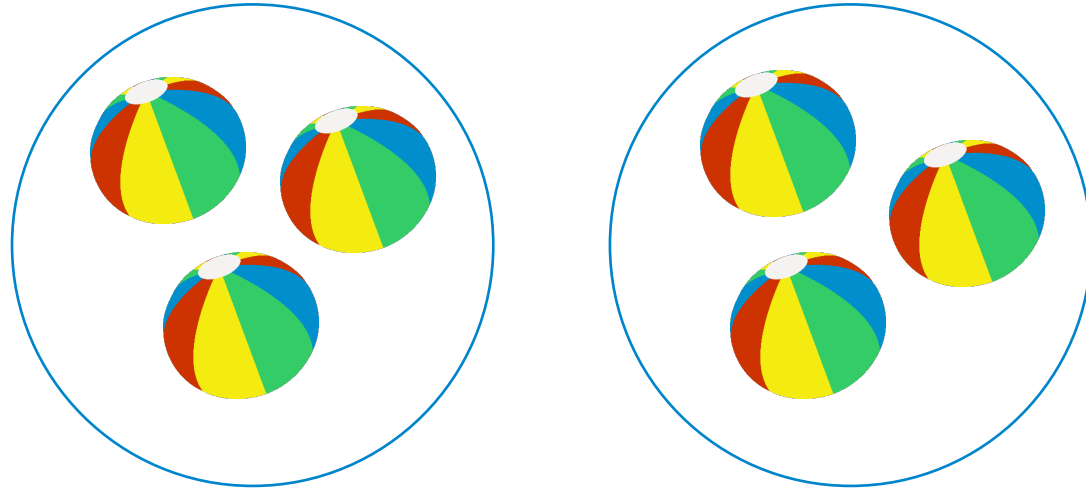
Group B



Recap

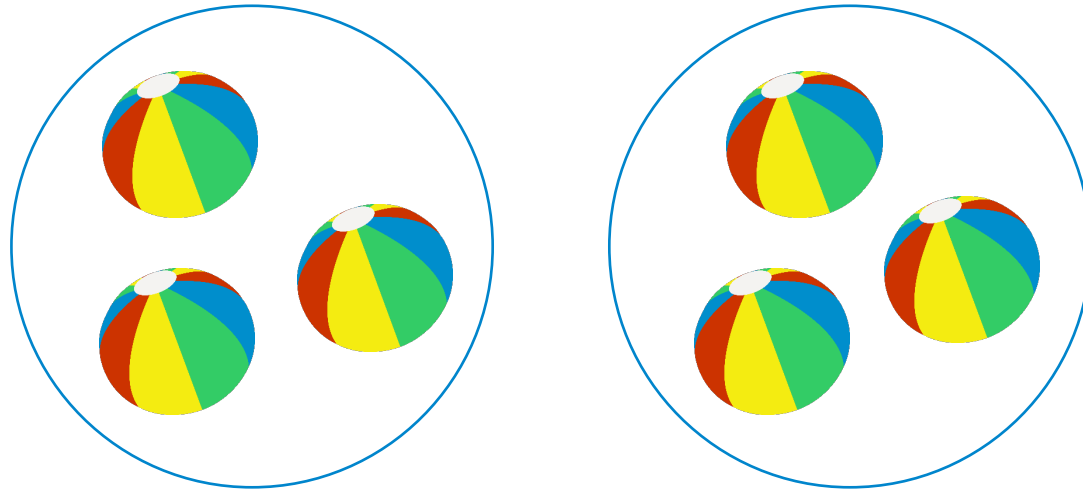


How could I describe my equal groups?



A - 3 equal groups of 2 in each group
B - 2 equal groups of 3 in each group
Discuss your ideas with your grown up.

Recap



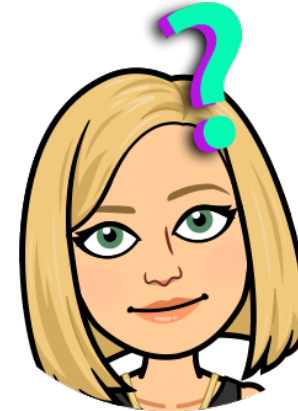
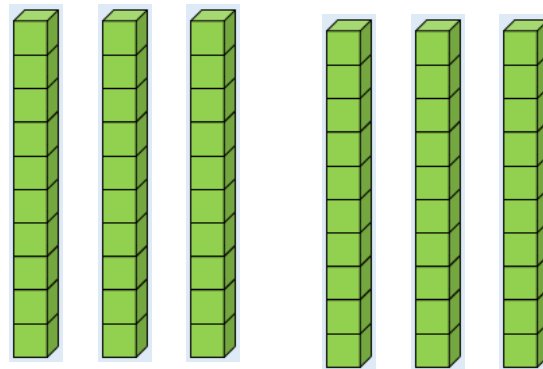
Did you spot that there are 2 equal groups of 3 not 3 groups of 2?

So B was correct.



Explore

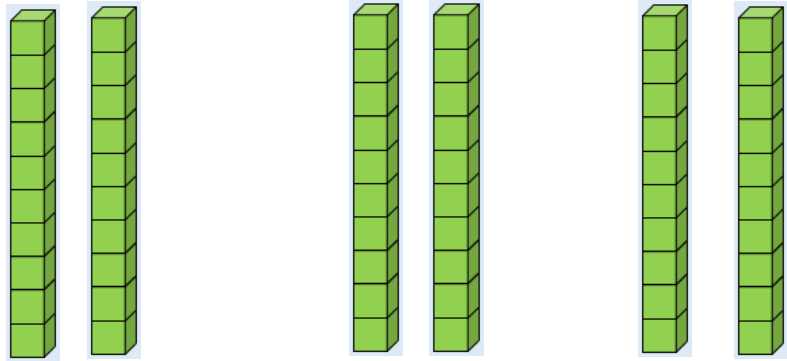
The Base 10 shows six equal groups of 10 in each group. There are six tens.



How else can you rearrange these six tens to make a different arrangement of equal groups?

Talk to your grown up and then watch the video to see how Mrs Riley does this by following the link on our Remote Learning page.

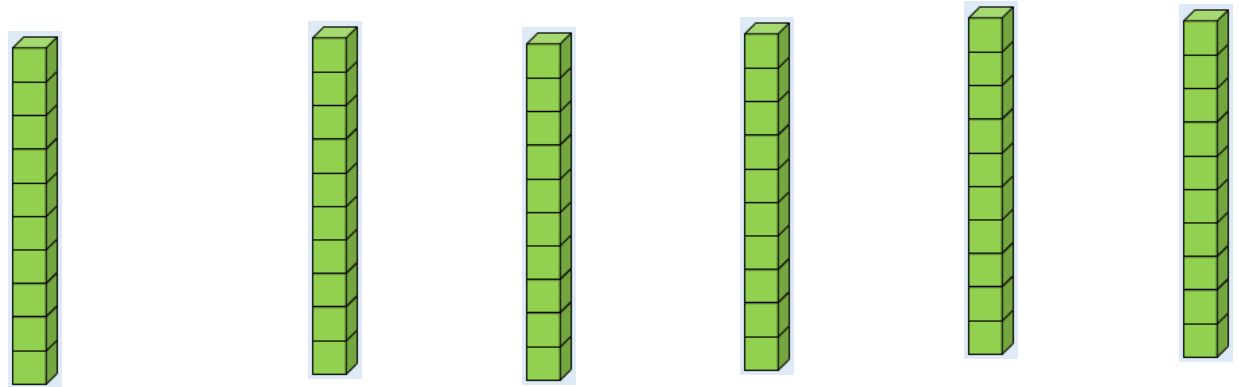
Explore



It can be represented as 6 equal groups with 1 ten each group.

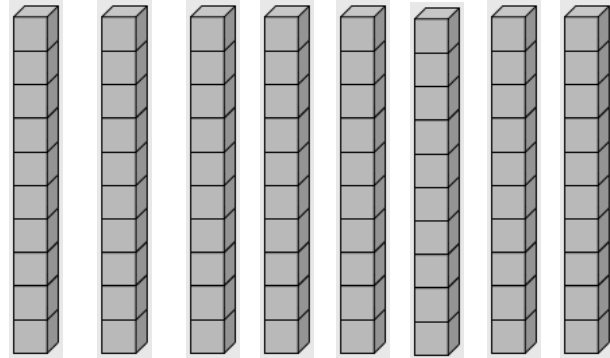
Did your ideas match mine?

It can be represented as 3 equal groups with 2 tens each group.



Independent Practice

The Base 10 shows 8 equal groups with ten in each group. There are eight tens.

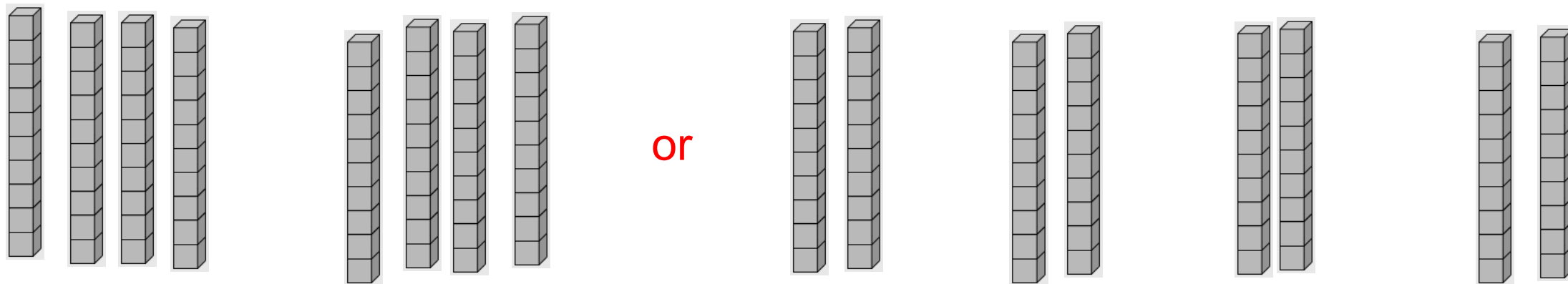


How else can you arrange these eight tens to show different combinations of equal groups?

Review

How else can you represent these as equal groups?

Can you see what I have done?.



It can be represented as 2 equal groups with 4 tens in each group or 4 equal groups with 2 tens in each group.

Guided Practice

Now we are going to rearrange some equal groups into different representations. Watch the next part of the video by following the link on our Remote Learning page and see how Mrs Riley models 'four equal groups with three in each group' into different combinations. Once you have done that I'd like you to complete the tasks on this page.

How many ways can you represent:

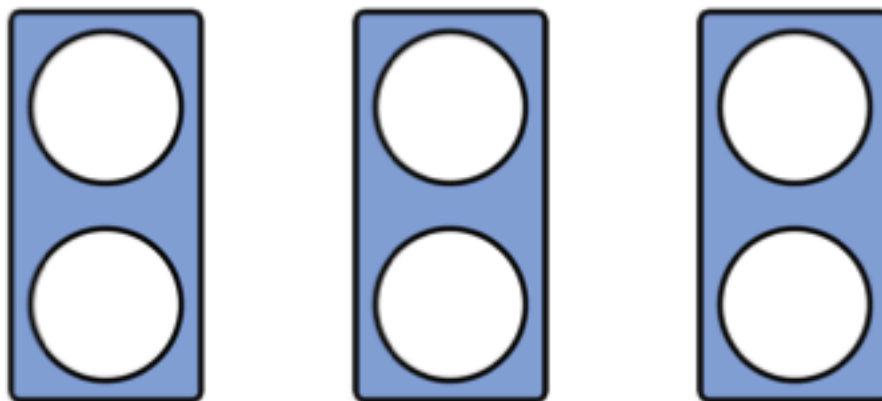
- a) three equal groups of two?
- b) four equal groups of five?
- c) Six equal groups of four?
- d) Five equal groups of three?

You will be able to rearrange some in more ways than others.

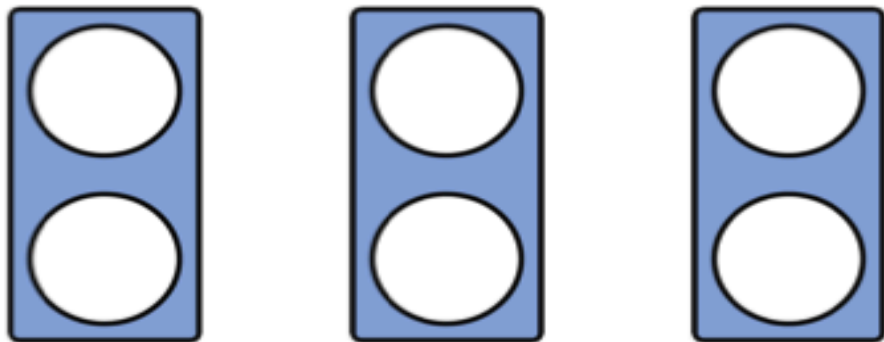
Guided Practice


Now we can represent our equal groups in different ways, we are going to move our learning on to look at another way of describing our equal groups by writing a number sentence.

Write an addition sum to represent the picture below?



Guided Practice



$$2 + 2 + 2 = 6$$


Can you see that each piece of Numicon is worth 2. There are 3 groups with 2 in each group. I can write this as the number sentence $2 + 2 + 2$.
 $2 + 2 + 2 = 6$

We call this a **repeated addition** sentence. Can you see why? Talk to your grown up about your ideas.

Guided Practice

Write an addition sentence to represent the picture below?



To solve this I need to work out how many groups I have and how many are in each group.

Guided Practice

Write an addition sentence to represent the picture below?



There are 5 groups (flowers) and each flower has 5 petals.
That means I have 5 groups of 5.

Guided Practice

Write an addition sentence to represent the picture below?



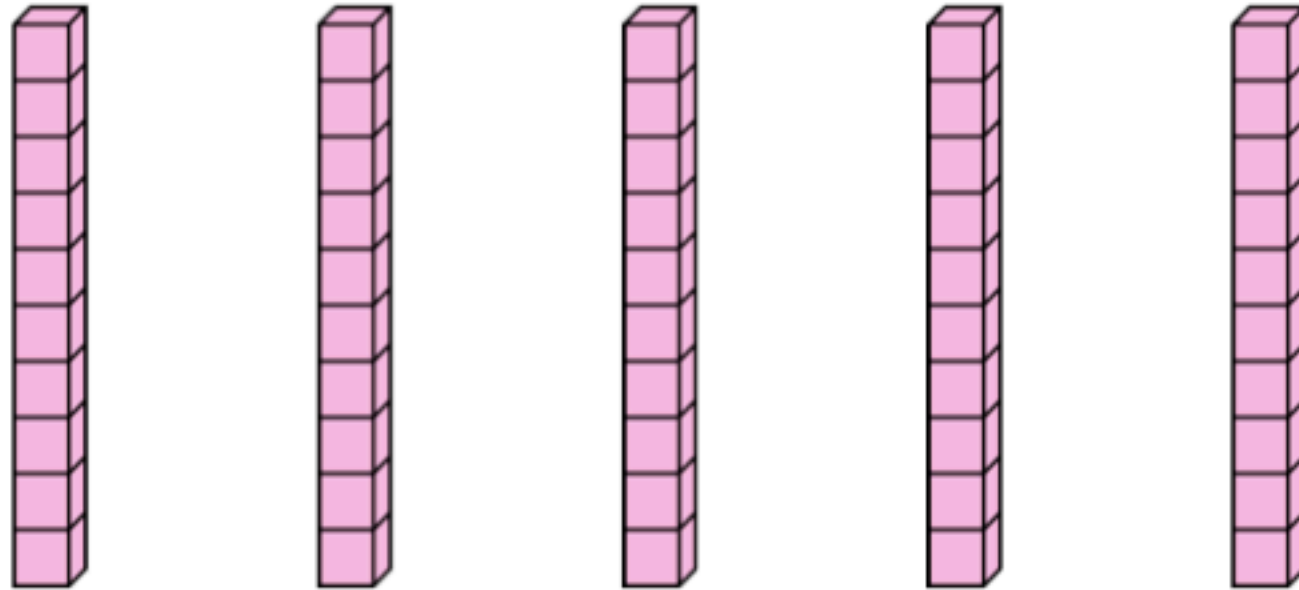
5 groups with 5 in each group can be written as a **repeated addition** like this:

$$5 + 5 + 5 + 5 + 5 = 25$$

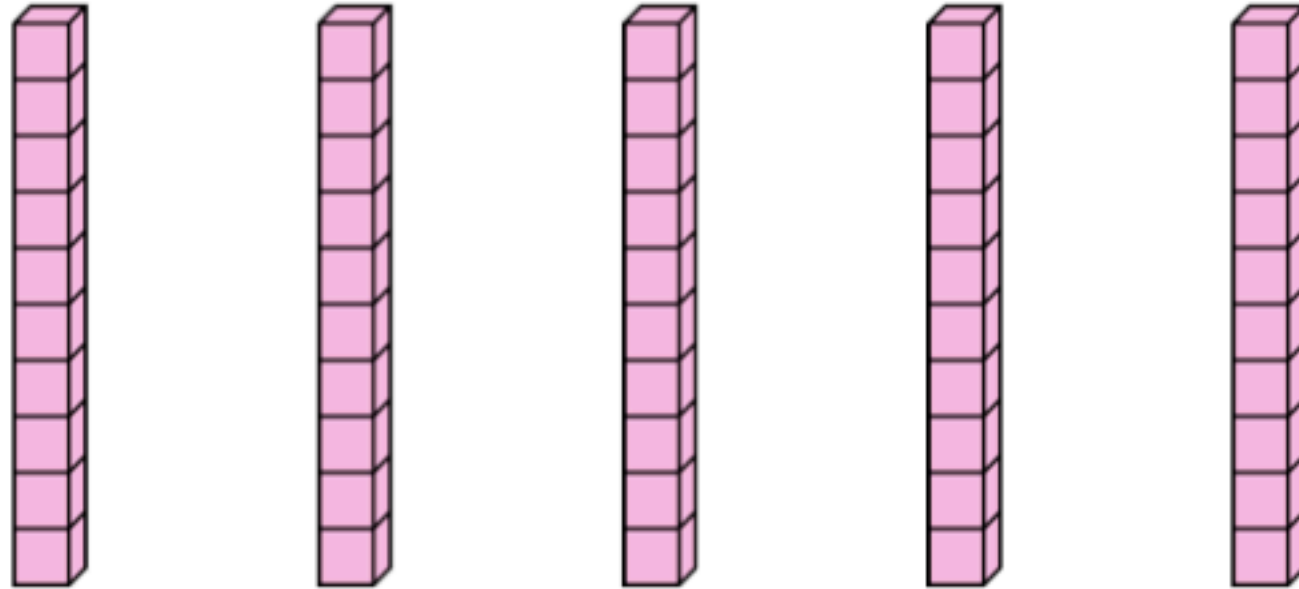
Independent Practice

Your turn.

Write an addition sum to represent
the picture below?



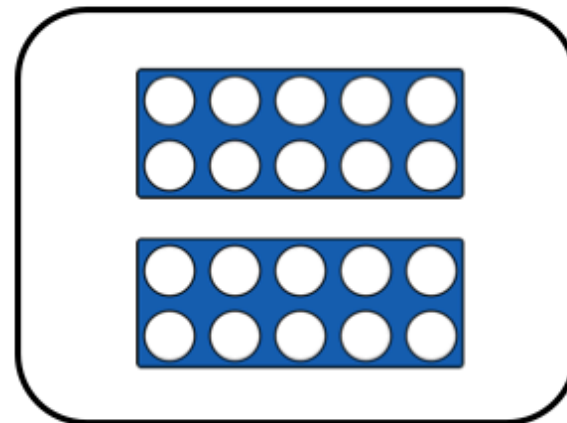
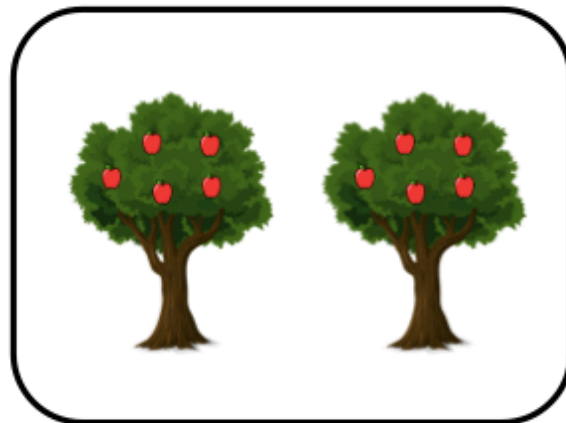
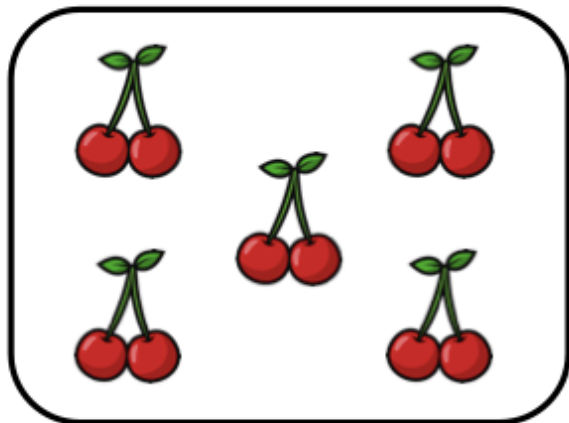
Independent Practice



5 groups with 10 in each group:
 $10 + 10 + 10 + 10 + 10 = 50$

Independent Practice

Match the representation to its total.



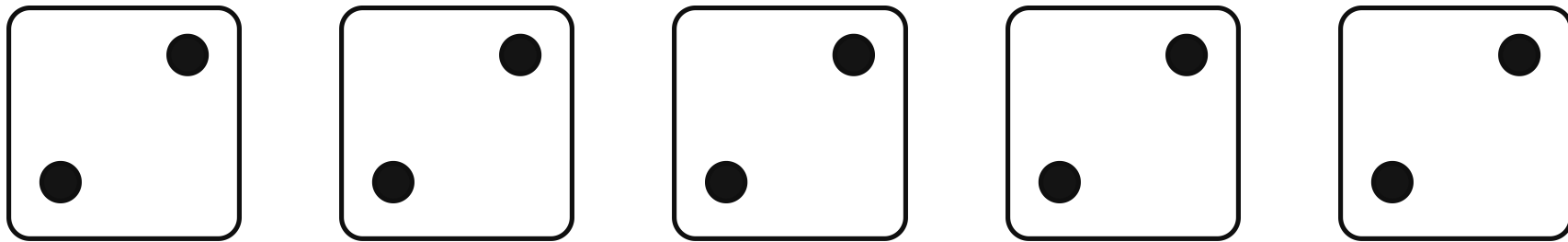
$$10 + 10$$

$$5 + 5$$

$$2 + 2 + 2 + 2 + 2$$

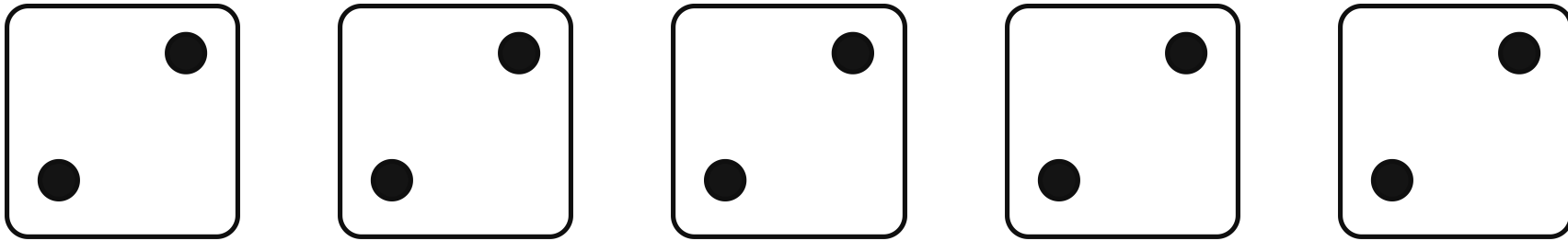
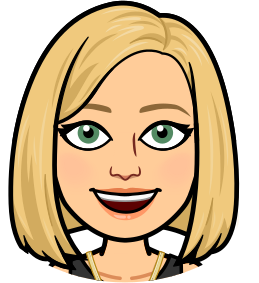
Guided Practice

Create a story for the following picture.



Think about how many groups and how many are in each group. What could I say about the way the dice have landed?

Response



An example could be:

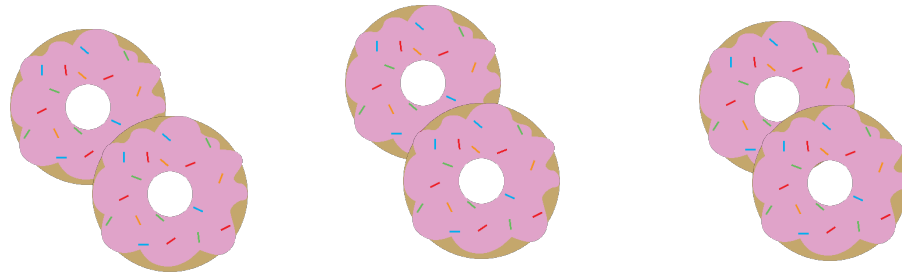
I rolled 5 dice and all of them landed on the number 2. That's 5 groups of 2.

$$2 + 2 + 2 + 2 + 2 = 10$$

Reasoning



The picture shows $3 + 3$.

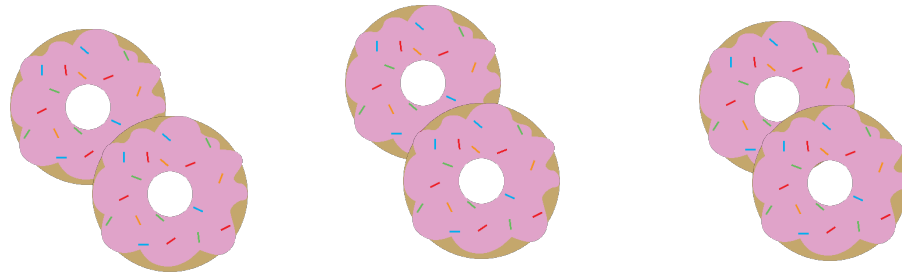


Is Mrs Riley correct? Talk to your grown up.
Look carefully at the picture. How many groups
are there and how many are there in each
group? Does it match $3+3$?

Reasoning Response



The picture shows $3 + 3$.

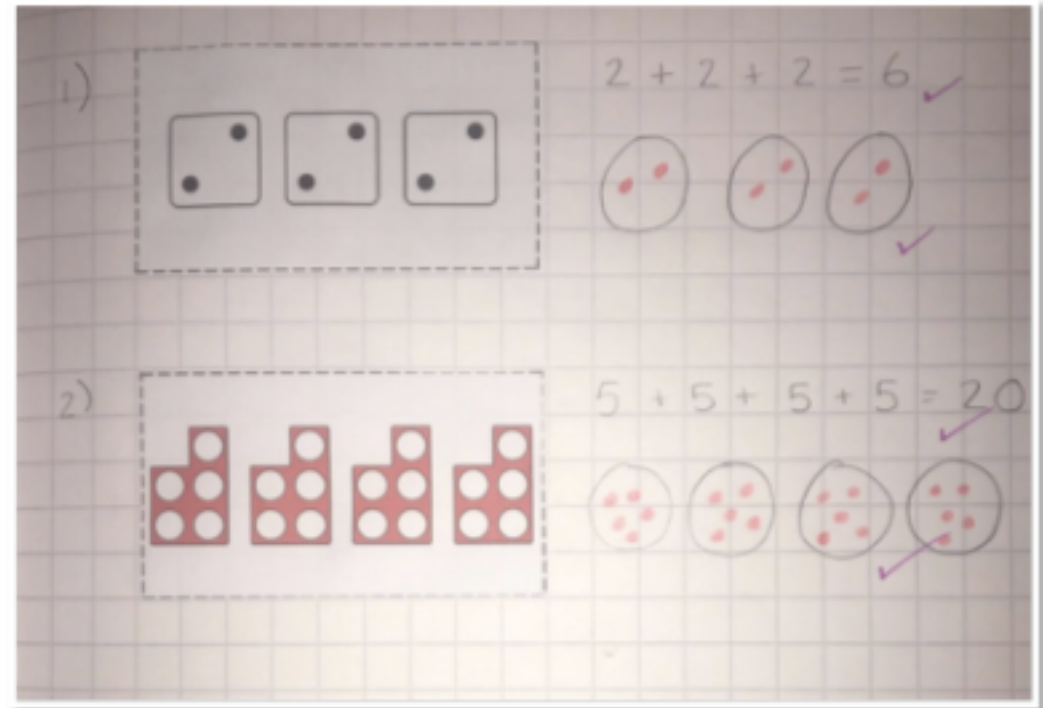
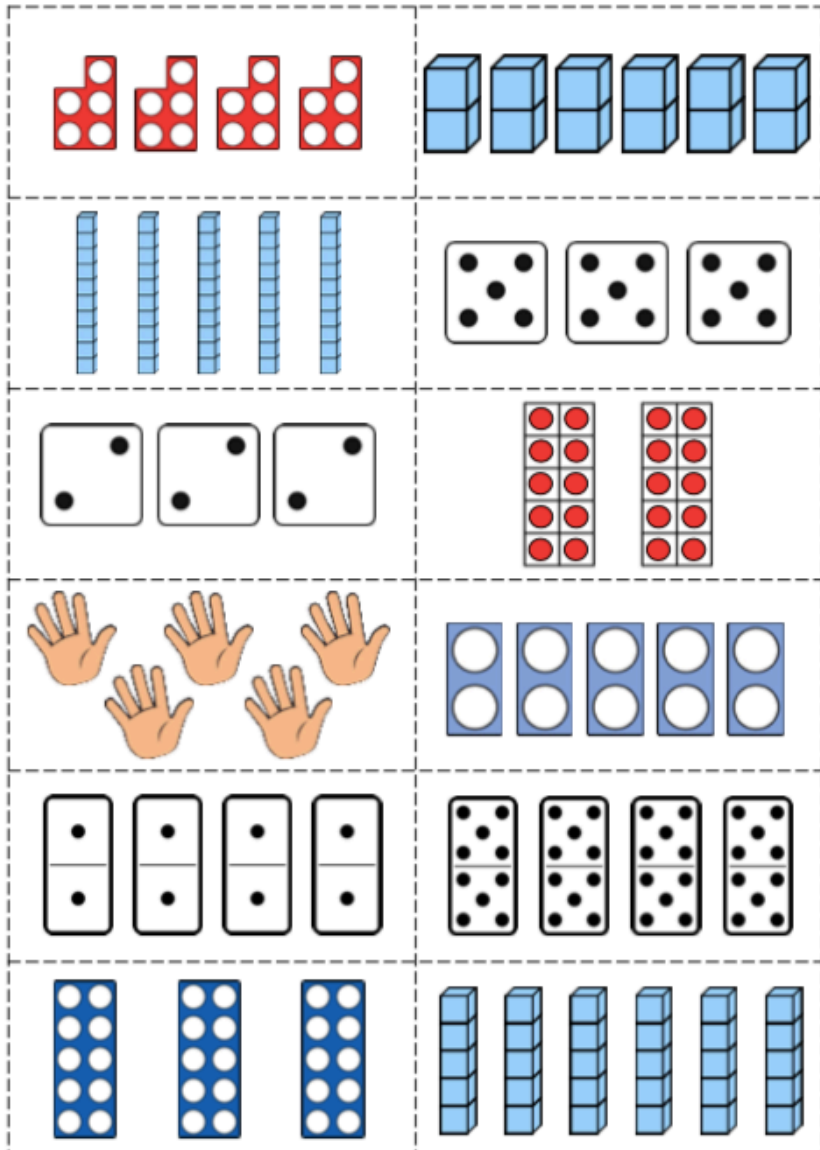


Is Mrs Riley correct?

No she is not correct, the picture shows $2 + 2 + 2$.

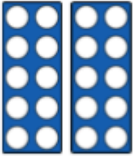
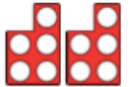
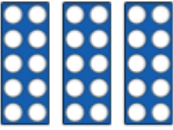


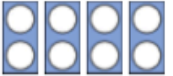
Independent Task

Select a picture card and write the corresponding repeated addition calculation.

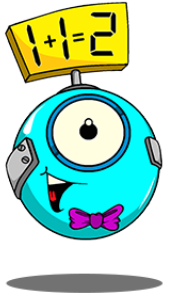


Draw a picture representation of the groups and create a matching number story

If you're finding things a little tricky, try this...

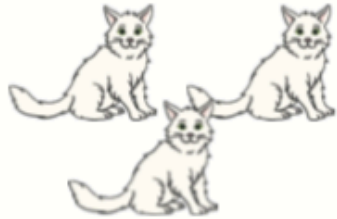
		$2 + 2 + 2 = \underline{\quad}$
		$5 + 5 + 5 = \underline{\quad}$
		$10 + 10 = \underline{\quad}$
		$5 + 5 = \underline{\quad}$
		$2 + 2 + 2 + 2 = \underline{\quad}$
		$10 + 10 + 10 = \underline{\quad}$

Challenge

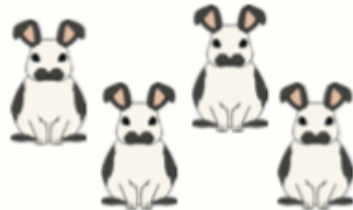


Solve these puzzles and write a repeated addition calculation for each one.

How many legs do three cats have?



How many ears do four rabbits have?



How many legs do two spiders have?



How many spots do three ladybirds have?



Can you write your own problem like this for your friends to solve?

Che is counting cherries.



$$4 + 2 = 6$$

Can you spot and explain Che's mistake?

Beth is making equal groups of doughnuts.



Adding one more group is the same as adding 10 more doughnuts.

Do you agree with Beth?

Explain why?

Well done Year 2. You are brilliant mathematicians and I am so proud of you.

We

Maths



ANSWERS

Answers

Complete these calculations; Show how you worked them out:

$$27 + 56 = 83$$

$$98 - 32 = 66$$

$$59 + 11 = 70$$

$$65 - 42 = 23$$

$$32 + 34 = 66$$

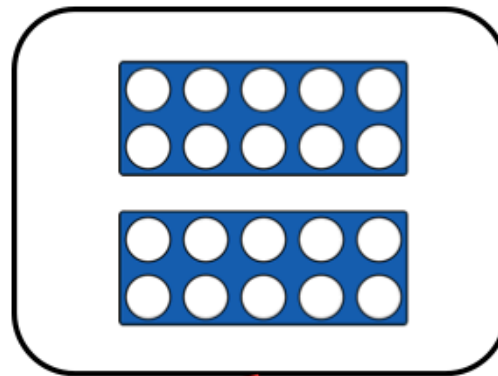
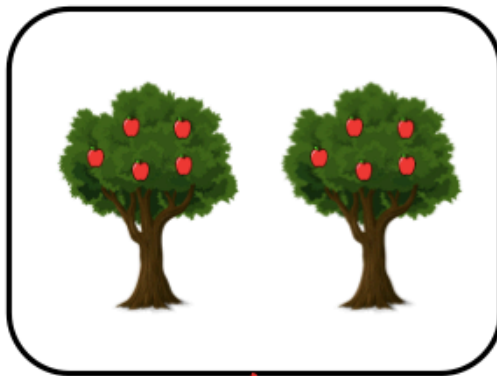
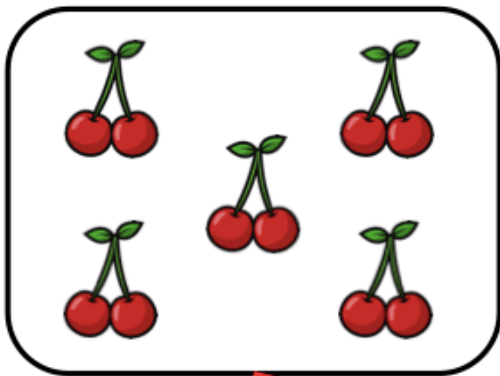


Mrs.. Riley made 31 cup cakes. Niamh ate 16 of them. How many cup cakes were left?

$$31 - 16 = 25$$

There were 25 cup cakes left

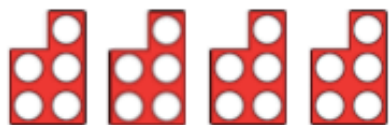
Independent Practice



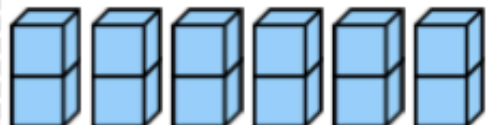
$$10 + 10$$

$$5 + 5$$

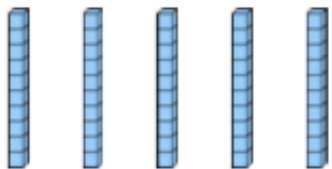
$$2 + 2 + 2 + 2 + 2$$



$5 + 5 + 5 + 5 = 20$



$2 + 2 + 2 + 2 + 2 + 2 = 12$



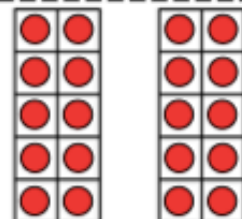
$10 + 10 + 10 + 10 + 10 = 50$



$5 + 5 + 5 = 15$



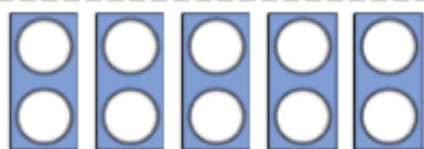
$2 + 2 + 2 = 6$



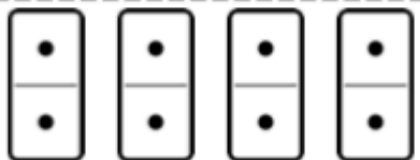
$10 + 10 = 20$



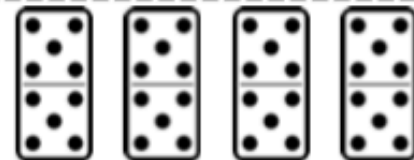
$5 + 5 + 5 + 5 + 5 = 25$



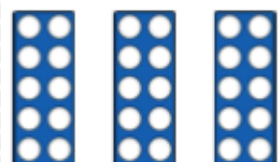
$2 + 2 + 2 + 2 + 2 = 10$



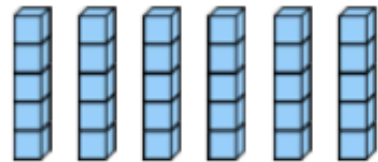
$2 + 2 + 2 + 2 = 8$



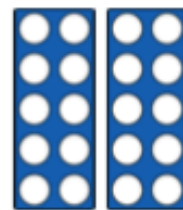
$10 + 10 + 10 + 10 = 40$



$10 + 10 + 10 = 30$



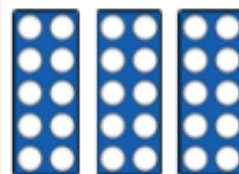
$5 + 5 + 5 + 5 + 5 + 5 = 30$



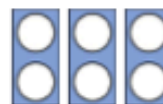
$10 + 10 = 20$



$5 + 5 = 10$



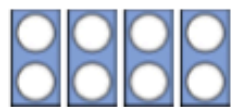
$10 + 10 + 10 = 30$



$2 + 2 + 2 = 6$



$5 + 5 + 5 = 15$



$2 + 2 + 2 + 2 = 8$

How many legs do three cats have? $4 + 4 + 4 = 12$

How many ears do four rabbits have? $2 + 2 + 2 + 2 = 8$

How many legs do two spiders have? $8 + 8 = 16$

How many spots do three ladybirds have? $6 + 6 + 6 = 18$

Che is counting cherries.



$$4 + 2 = 6$$

Can you spot and explain Che's mistake?

Che has added the 4 groups of 2 cherries instead of calculating 4 lots of 2. The answer is 8 not 6.

Beth is making equal groups of doughnuts.



Adding one more group is the same as adding 10 more doughnuts.

Do you agree with Beth?

Explain why?

Beth is correct, one more group is 10 so adding 10 more is adding one group.