

HELLO!

Today we are going to learn to revise ratio and
proportion



THIRD SPACE
LEARNING

Arithmetic Warm Up

Percentages

Use the space under each question to show your working out.

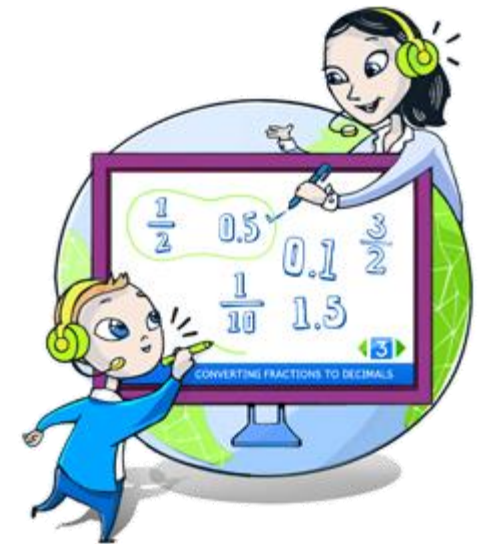
1. 50% of 270 =

2. 25% of 4600 =




3. 30% of 520 =

4. 95% of 380 =

Revision on ratio and proportion



Today we are going to revise how to:

-  to write, multiply and divide ratios
-  to scale in proportion and use scale factors
-  to solve problems using ratio and proportion

Revision: Ratios

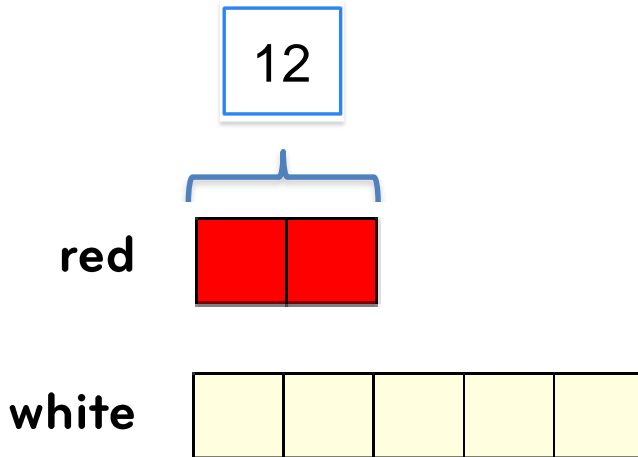
Write a ratio to describe this set of beads.



The numbers in a ratio follow the same order as the words.

The ratio of red to white beads is

If we continue this pattern of beads, how many white beads will there be if there are 12 red? We can use a drawing to model this!



So, there will be

white beads in this pattern.

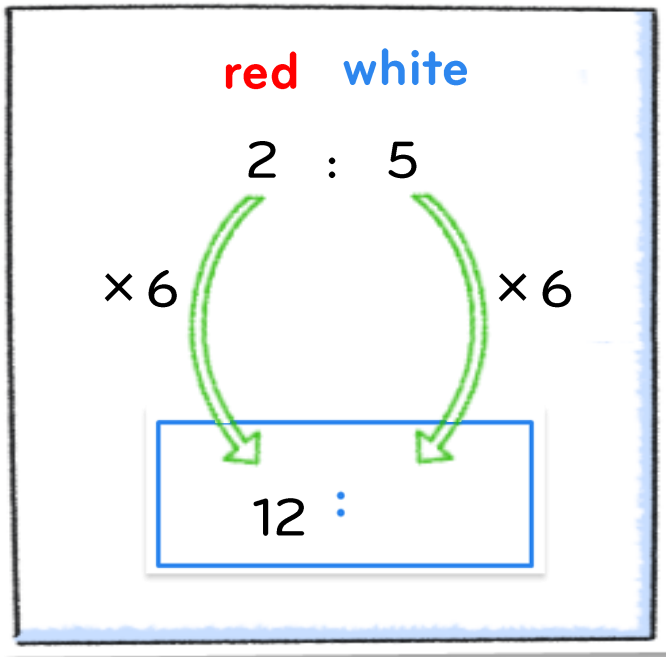
Revision: Ratios using multiplication

We can also solve this using multiplication.

The ratio of **red beads** to **white beads** is 2 : 5.



If there are 12 red beads in this pattern, how many white beads will there be?



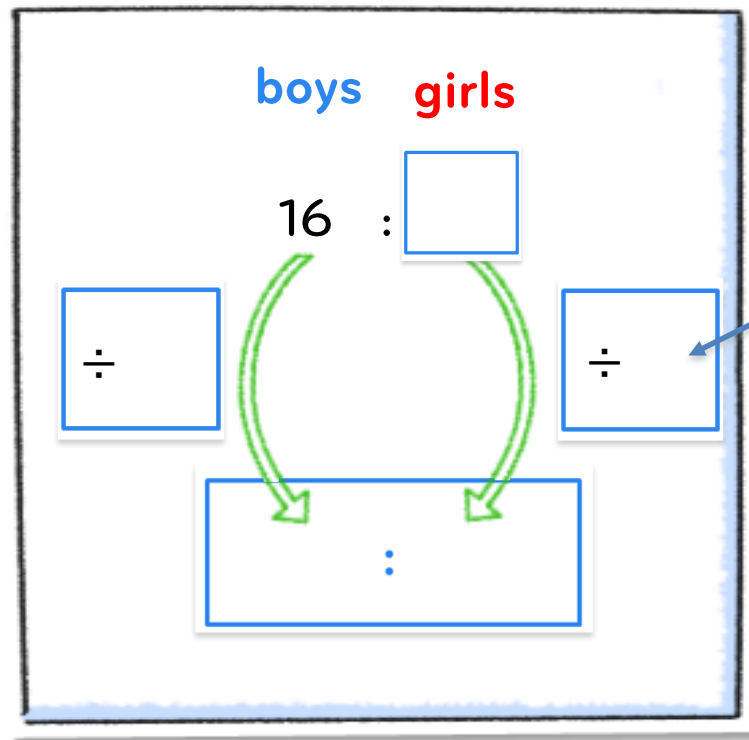
How does this relate back to the diagram we used earlier?

Revision: Ratios using division

We can also solve similar problems using division.

There are 28 children in a class.

- There are 16 boys; how many girls are there?
- What is the ratio of boys to girls written in its simplest form?



What is the highest common factor we can divide both the numbers by?

So, the ratio of boys to girls


in this class is

 :



Question 1

 Complete

 What do you notice?

19 David and his friends prepare a picnic.

Each person at the picnic will get:

3 sandwiches


2 bananas


1 packet of crisps





The children pack **45** sandwiches.


How many **bananas** do they pack?

What do you know? 

 Can you show your working out?

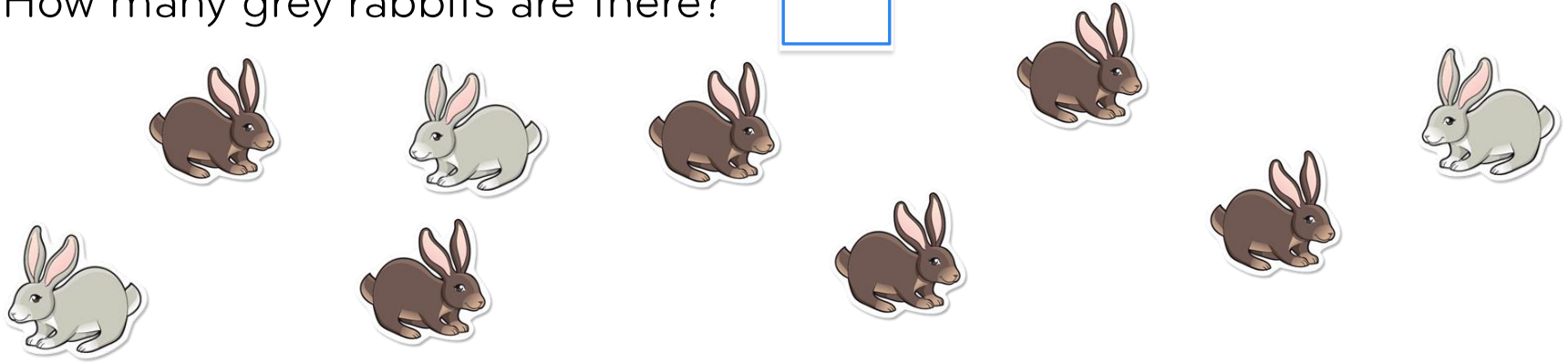
 Show your **method**. You may get a mark. 

bananas

How could you extend the question? 

Revision: Proportion

How many grey rabbits are there?



How many rabbits are there altogether?

So, the proportion of grey rabbits out of the total number of rabbits is:

out of

What is the ratio of grey rabbits to brown rabbits?

Explain how you think ratio and proportion are different.

Revision: Proportion (scaling)

Sometimes we need to use scaling to help keep things in proportion

To make 4 smoothies, Amy needs 6 scoops of ice-cream and 20 strawberries.

If Amy needs to make 6 smoothies,

a) How many scoops of ice-cream will she need?

b) How many strawberries does she need?

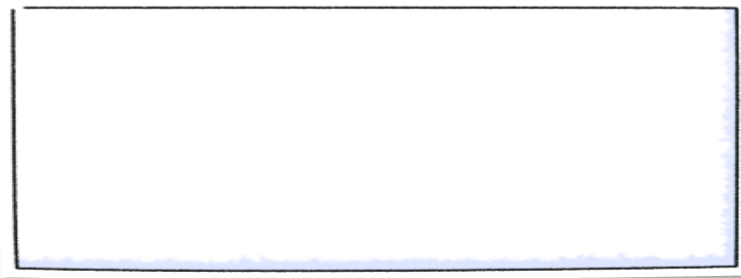
Explain how you know.



Using scale factors



- Beth draws a square that has sides of 3cm. She wants to draw another square that is larger by a **scale factor of 6**. How long should she draw her sides?



Did you know that the scale factor is really a ratio between two sets of measurements?

- The ratio of length of sides of square A to length of sides of square B is





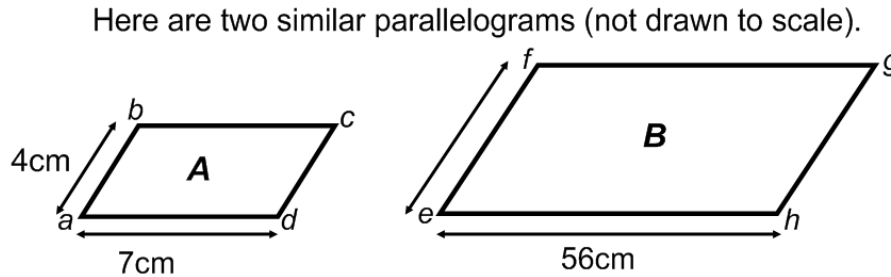
Question 2



Complete



What do you notice?



What do you know?

1) What is the scale factor from Parallelogram A to Parallelogram B?

2) What is the length of the side ef ?



Can you show your working out?

How could you extend the question?



Question 3



Complete



What do you notice?

These are the prices of cheese in a shop.



Cheddar cheese
82p for 100 grams

Edam cheese
66p for 100 grams

Cottage cheese
45p for 100 grams

Mina buys **200g** of Cheddar cheese and **150g** of Edam cheese.

How much does she pay altogether?

What do you know?



Can you show your working out?

How could you extend the question?



Question 4



Complete

What do you notice?

These are the prices of cheese in a shop.



Cheddar cheese
82p for 100 grams

Edam cheese
66p for 100 grams

Cottage cheese
45p for 100 grams

What do you know?

Seb buys some cottage cheese for £1.35

How many grams of cottage cheese does he get?

How could you extend the question?

Can you show your working out?



Question 5



Complete

What do you notice?

Here are the ingredients for chocolate ice cream.

cream	400 ml
milk	500 ml
egg yolks	4
chocolate	120 g
sugar	100 g



What do you know?

Stefan has only 300ml of cream to make chocolate ice cream.

How much **chocolate** should he use?

How could you extend the question?

Can you show your working out?

Let's review:



I can write, multiply and divide ratios



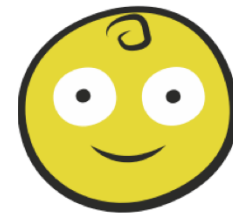
I can scale in proportion and use scale factors



I can solve problems using ratio and proportion



Draw a circle around the smiley face to show how you feel about what we've just been doing.



Is there something you would like to go over before we move on?