



Topic: Ratio

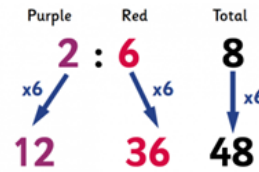
Year: 6

Strand: Proportional Reasoning

What should I already know?

Previous learning that will help you with this unit of work:

- Recall multiplication facts for multiplication tables up to 12×12
- Recall division facts for multiplication tables up to 12×12
- Find fractions of an amount
- Find multiples of a given number



What will I know by the end of the unit?

	Key Vocabulary
ratio	Ratio is a relationship between two things when it is expressed in numbers or amounts.
proportion	A part to whole comparison
whole	All of the number.
part	Some of the number.
fraction	A fraction is a number that can be expressed as a proportion of two whole numbers. For example, $\frac{1}{2}$ and $\frac{3}{4}$ are both fractions.
multiple	If one number is a multiple of a smaller number, it can be exactly divided by that smaller number.
compare	To consider the differences and similarities between two different things.
scale factor	A number which tells you how much a shape has been enlarged by.
quantity	An amount that you can measure or count.
enlargement	The process of changing the size of a shape. Whilst keeping the angles the same.
similar	If one thing is similar to another, they have features that are the same.

What does the : symbol mean in the context of ratio?	The : symbol shows the relation between the two quantities represented.
How do we write ratio that compares two quantities?	3:7
How do we write ratio that compares three quantities?	3 : 7 : 2
How do we read '3:7'?	<i>For every three, there are seven.</i>
What does enlargement mean?	Enlargement means to change the size of a shape.
How do we use a scale factor to change the size of a shape?	A scale factor is the number that will determine by how much a shape is going to change sizes.
What type of scale factor do we use to make a shape bigger?	In order to make a shape bigger, we need to use a scale factor greater than 1.
What type of scale factor do we use to make a shape smaller?	In order to make a shape smaller, we need to use a scale factor between 0 and 1.

Objectives

- To be able to use ratio language.
- To understand the correspondence between ratio and fractions.
- To be able to use the ratio symbol correctly.
- To calculate ratio.
- To be able to use scale factor correctly.

Useful Websites

<https://www.edplace.com/blog/edplace-explains/learning-ratios-and-proportions-in-ks2-worksheets-and-answers>

<https://nrich.maths.org/8959>