



Ratio and Proportion - Year 6

Key vocabulary

Ratio	A ratio shows the relative sizes of two or more values.
Proportion	Proportion says that two ratios (or fractions) are equal.
Part	A section/piece/amount of a whole
Whole	All of something. Complete.
Scale Factor	How many times larger than the object the image is.
Enlargement	A type of transformation that involves making a shape larger.

Ratio language



For every 1 circle, there are 2 triangles.

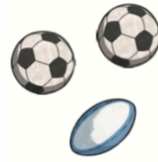


For every 2 bananas, there are 3 apples.



For every 1 football, there are 3 rugby balls

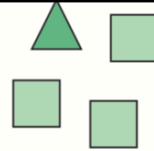
Ratio and Fractions



For every 1 rugby ball, there are 2 footballs

Ratio of rugby balls to footballs 1:2

$\frac{1}{3}$ of the balls are rugby balls.



For every 1 triangle, there are 3 squares.

Ratio of triangles to squares 1:3

$\frac{1}{4}$ of the shapes are triangles.

The Ratio Symbol



The ratio of footballs to rugby balls 1:4

The ratio of rugby balls to footballs 4:1



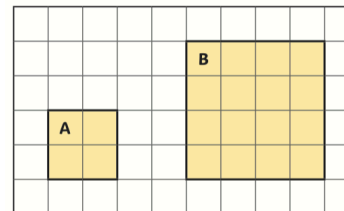
The ratio of apples to bananas 1:2

The ratio of bananas to oranges 2:3

The ratio of apples to bananas to oranges 1:2:3

The ratio of oranges to bananas to apples 3:2:1

Scale Factors



Shape A has been enlarged by a scale factor of 2 to make shape B.

Proportion

Ingredients for
Fruit smoothie
(Serves 10 People)

800g of bananas

500g of strawberries

200g of raspberries

700 ml of milk

To use ingredients for 1 person, you divide all of the quantities by 10 ($\div 10$).

To use the ingredients for 5 people, you halve all the quantities ($\div 2$).

To use the ingredients for 20 people, you double all the quantities ($\times 2$).