



# 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.

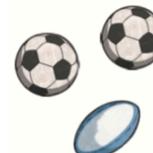


For every 2 bananas, there are 3 apples.



For every 1 football, there are 3 rugby balls

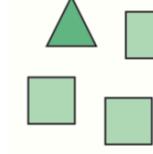
## Ratio and Fractions



For every 1 rugby ball, there are 2 footballs

Ratio of rugby balls to footballs 1:2

1/3 of the balls are rugby balls.



For every 1 triangle, there are 3 squares.

Ratio of triangles to squares 1:3

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

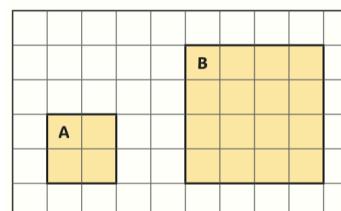


The ratio of apples to bananas to oranges 1:2:3



The ratio of oranges to bananas to apples to 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)

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

800g of bananas

500g of strawberries

200g of raspberries

700 ml of milk

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 ( $\times 2$ ).