



Vocabulary

ratio

proportion

"for every... there are..."

part

whole

scale factor

enlargement

similar shapes

length

width

perimeter

Ratio language

For every 1 circle, there are 2 triangles.



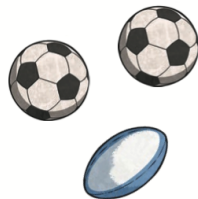
For every 2 bananas, there are 3 apples.



For every 1 football, there are 3 rugby balls.



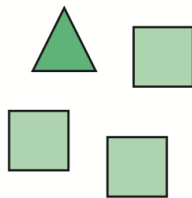
Ratio and fractions



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.

Year Six Ratio

Ratio symbol



The ratio of footballs to rugby balls: 1:4

The ratio of rugby balls to footballs: 4:1



The ratio of circles to triangles: 2:3

The ratio of triangles to circles: 3:2



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

Ratio and proportion problem solving

Ingredients for Fruit Smoothie
(serves 10 people)

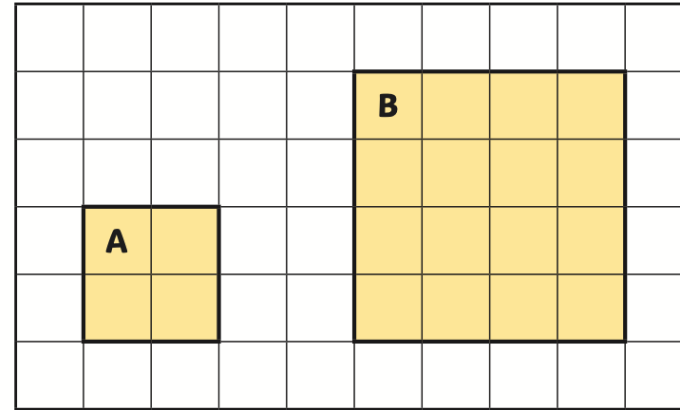
- 800g of bananas
- 500g of strawberries
- 200g of raspberries
- 700ml of milk
- 300ml of natural yogurt

To use the ingredients for 1 person, you divide all 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 ($\times 2$).

Scale factors

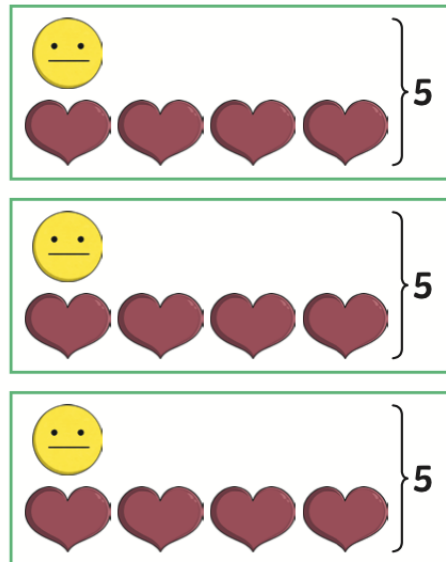


Shape A has been enlarged by a scale factor of 2 to make Shape B.

Shape B is now two times as big as Shape A.

In a bag of 15 sweets, there is 1 smiley face sweet for every 4 love heart sweets.

Therefore, there will be 3 smiley face sweets and 12 love heart sweets in the bag.



Shape B has been enlarged from Shape A by a scale factor of 3.

Shape B is now three times as big as Shape A.

