








| Key Vocabulary  | Ratio Language   |  | The Ratio Symbol  |
|---|--|--|---|
| ratio   | For every 1 circle, there are 2 triangles.   |  |   |
| proportion  |  |  |    |
| "for every... there are..."   | For every 2 bananas, there are 3 apples.   |  | The ratio of footballs to rugby balls: 1:4  |
| part  |  |  | The ratio of rugby balls to footballs: 4:1  |
| whole   | For every 1 football, there are 3 rugby balls.                                     |  |   |
| scale factor  |   |  |    |
| enlargement   | <b>Ratio and Fractions</b>   |  | The ratio of circles to triangles: 2:3  |
| similar shapes  | For every 1 rugby ball, there are 2 footballs.                                     |  |   |
| length  | Ratio of rugby balls to footballs: 1:2   |  |  |
| width   | $\frac{1}{3}$ of the balls are rugby balls.  |  | The ratio of apples to bananas: 1:2   |
| perimeter   | For every 1 triangle, there are 3 squares.   |  | The ratio of bananas to oranges: 2:3  |
|  visit <a href="https://www.twinkl.com">twinkl.com</a> | Ratio of triangles to squares: 1:3   |  | The ratio of apples to bananas to oranges: 1:2:3                                      |
|   | $\frac{1}{4}$ of the shapes are triangles.   |  | The ratio of oranges to bananas to apples: 3:2:1                                      |

## Ratio and Proportion Problem-Solving

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

**Ingredients for Fruit Smoothie**  
(serves 10 people)

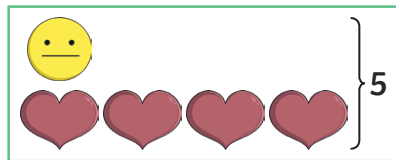
- 800g of bananas
- 500g of strawberries
- 200g of raspberries
- 700ml of milk
- 300ml of natural yogurt

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

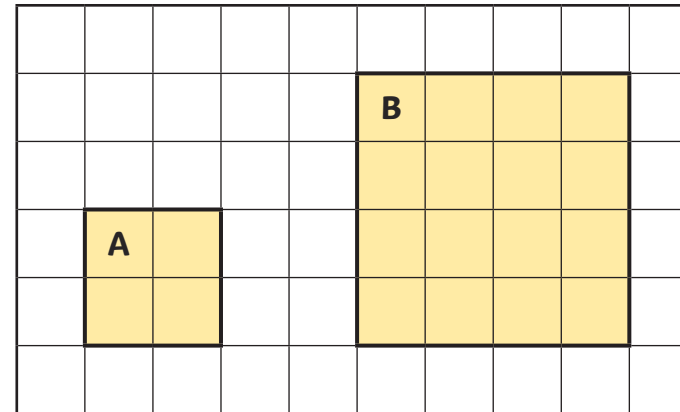
To use the ingredients for 20 people, you double all the quantities ( $\times 2$ ).

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.



## 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.

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.

