

Language of Ratio

A ratio shows the relationship between values.



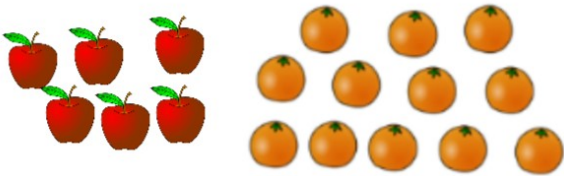
For every 2 **blue flowers** there are 4 **pink flowers**. The ratio of **blue flowers** to **pink flowers** is **2:4**.

OR

For every **blue flower** there are 2 **pink flowers**. The ratio of **blue flowers** to **pink flowers** is **1:2**.

Ratios and fractions

Ratios and fractions are very closely linked.



The ratio of **apples** to **oranges** is **6:12** or **1:2**.

There are **1/2 the number of apples** compared to **oranges** OR there are **twice** as many **oranges** as **apples**.

The ratio of **apples** to **the total number of fruit** is **6:18** or **1:3**.

1/3 of **all the fruit** are **apples**.



Year 5/6 - Ratio

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Scale factors

When a shape is increased by a scale factor, the length and width are multiplied by the scale factor.



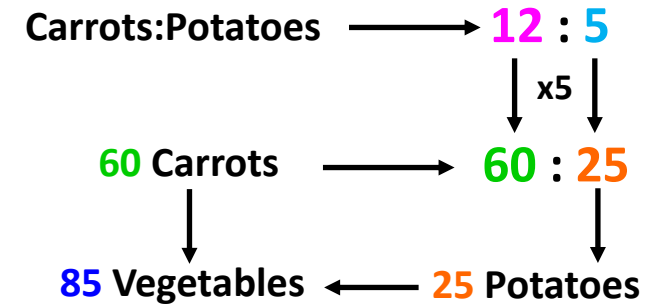
2 cm
4 cm
The green rectangle has been increased by a **scale factor of 3**



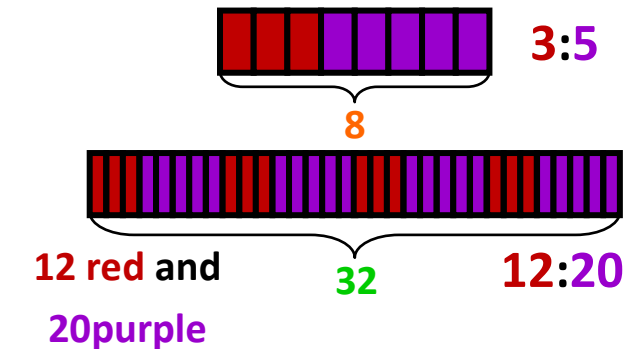
6 cm
12 cm
to make the yellow rectangle.

Calculating ratios

A farmer plants some crops in a field. For every **12 carrots**, she plants **5 potatoes**. She plants **60 carrots** in total. How many **potatoes** did she plant? How many **vegetables** did she plant in total?



Emily has a packet of sweets. For every **3 red sweets** there are **5 purple sweets**. If there are **32 sweets in the packet in total**, how many of each colour are there?



If you had **3 red sweets**, you'd have **5 purple** - so **8 sweets in total**. **8** goes into **32 4 times** - so you'd have **3x4 red sweets** and **5x4 purple**.

Flapjacks

Serves: 10

120 g butter

100 g dark brown soft sugar

4 tablespoons golden syrup

250 g rolled oats

40 g sultanas or raisins

John has 180g of butter. What is the largest number of flapjacks he can make?

120g of butter
↓
Serves 10

180g of butter
↓
Serves 15

120 : 180
÷60
2 : 3
x5
10 : 15