

# Ratio

To achieve the higher score, you need to:

- ★ solve ratio problems where missing values can be found by using multiplication and division facts.



## What you need to know

- **Ratio** compares the relative sizes of quantities or numbers.

## Let's practise



At school, children can have a packed lunch or a school dinner. The ratio of children who have a packed lunch to those who have a school dinner is **2:7**

168 children have a school dinner.

How many children eat at school altogether?



1

Read the question and read it again.  
What is it asking?

Work out how many children have a packed lunch and add it to the number of children who have a school dinner.

2

Think of ratio as shares.  
School dinners are 7 shares because the ratio is 2 (packed lunch) : 7 (school dinner)

168 children have a school dinner.

$$168 \div 7 = 24$$

Each share is worth 24.

3

Packed lunches are 2 shares.

$$24 \times 2 = 48$$

4

Add the two numbers together.

$$168 + 48 = 216$$

5

What is your answer?

216 children eat at school altogether.

6

Check your answer.

## Try this

- 1 The ratio of boys to girls at a school is **5:4**

There are 165 boys.

How many children are in the school?  children

- 2 The ratio of dogs to cats in an animal shelter is **4:3**

There are 23 more dogs than cats.

How many cats are there?  cats

## Top tip

- **7:2** is not the same as **2:7**. Read the question twice to make sure you are using the correct numbers in your calculation and providing the answer in the order required.

# Ratio

To achieve the higher score, you need to:

- ★ solve **ratio** problems where missing values can be found by using multiplication and division facts.

- 1 In a fruit salad, 12 strawberries are used for every 5 peaches. Flora uses 85 of these fruits altogether to make a large fruit salad. How many strawberries does she use?

1  
(1 mark)

- 2 Jo draws a square with a base of 4.5 cm. She then scales the base by a whole number to draw a larger square.

2  
(1 mark)

Circle the base lengths that she **cannot** make.

27 cm      45 cm      54 cm      84 cm      90 cm

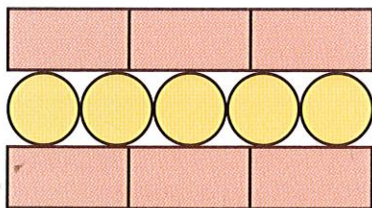
- 3 The ratio of fish to frogs in a small pond is 5:2. There are 14 frogs.

3  
(1 mark)



How many fish and frogs are there in total?

- 4 The picture shows one part of a repeating pattern of rectangular and circular tiles.

4  
(2 marks)



Complete the table using the same ratio as shown in the picture.

Rectangular tiles 	18		66	120	
Circular tiles 		45			150

## Top tip

- Ratio describes how something is divided and tells you the relative sizes of the shares.

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