

**Example 8.2**

Write what fraction of

**a** 1 metre is 10 centimetres**b** 2 minutes is 30 seconds**a** First you need to express 1 metre as centimetres: 1 metre = 100 centimetres.

$$10 \text{ centimetres} = \frac{10}{100} = \frac{1}{10} \text{ of 1 metre}$$

**b** 2 minutes =  $2 \times 60 = 120$  seconds.

$$30 \text{ seconds} = \frac{30}{120} = \frac{3}{12} = \frac{1}{4} \text{ of 2 minutes}$$

**Exercise 8A****1** Copy and complete each of these statements.

**a**  $\frac{1}{10}$  of £60 = .....

**b**  $\frac{3}{10}$  of £60 = .....

**c**  $\frac{1}{10}$  of £50 = .....

**d**  $\frac{7}{10}$  of £50 = .....

**e**  $\frac{1}{10}$  of £10 = .....

**f**  $\frac{5}{10}$  of £40 = .....

**2** Copy and complete each of these statements.

**a**  $\frac{1}{4}$  of £12 = .....

**b**  $\frac{3}{4}$  of £12 = .....

**c**  $\frac{1}{3}$  of £24 = .....

**d**  $\frac{2}{3}$  of £24 = .....

**e**  $\frac{1}{4}$  of £40 = .....

**f**  $\frac{3}{5}$  of £50 = .....

**3** Work out each of the following.

**a**  $\frac{2}{3}$  of 36 m

**b**  $\frac{3}{4}$  of 44 p

**c**  $\frac{5}{6}$  of £18

**d**  $\frac{4}{5}$  of 35 kg

**e**  $\frac{3}{8}$  of 40 cm




**f**  $\frac{3}{7}$  of 42 km

**g**  $\frac{4}{9}$  of 36 mm

**h**  $\frac{5}{6}$  of £24

**4** Write what fraction of:**a** 1 week is 2 days**b** 1 year is 7 months**c** £1 is 39 p**d** 1 m is 21 cm**e** 10 hours is 60 minutes**f** 100 ml is 39 ml**5** How many grams are there in  $\frac{1}{2}$  of a kilogram?**6** A school has 800 pupils. Three quarters of them get to school by bus. How many use the bus?**7** A magazine has 240 pages.  $\frac{2}{3}$  of them are used for adverts and the rest are articles. How many pages have articles on them?**8** A pizza weighing 480 grams is shared equally between 4 friends. How much do they each get?

### *Fractions, decimals and percentages*

-  **9** There are 120 pupils in S1 at Burghness High School.
- a**  $\frac{3}{4}$  of them play football. How many pupils play football? How many teams of eleven could be made from all the S1 football players?
- b**  $\frac{2}{5}$  of them choose maths as their favourite subject. How many pupils choose maths as their favourite subject.
- c**  $\frac{1}{6}$  of them have brown eyes.  $\frac{1}{2}$  of them have blue eyes, and the rest have green eyes. Work out the fraction that have green eyes and then work out the numbers of pupils with brown, blue and green eyes.
-  **10** There are 32 cars in the school car park.  $\frac{5}{8}$  of them are silver and  $\frac{1}{4}$  are blue, and the rest are red. Work out the fraction that are red and then work out the numbers of silver, blue and red cars.
-  **11** Every day the local baker's shop bakes 80 white rolls, 40 granary rolls and 40 brown rolls. Work out the fraction that are white.