

# Find fractions of numbers and quantities

## → Starting point

Show the first two rows in graphic A. Ask:

- *How can we find  $\frac{3}{8}$  of £32?* [Divide £32 by 8 to find  $\frac{1}{8}$  and then multiply by 3 to find  $\frac{3}{8}$ .]
- *Which number do we divide?* [the quantity, £32]
- *Which number do we divide by?* [the denominator, 8]
- *Which number do we multiply by?* [the numerator, 3]
- *What is  $\frac{1}{8}$  of £32?* [£4]

Show the row of 8 lots of £4 making the total of £32.

- *So what is  $\frac{3}{8}$  of £32?* [£4 multiplied by 3 = £12]

Reveal graphic B and revise finding fractions by dividing by the denominator and then multiplying by the numerator. Remind the pupils to notice the first letters of the key words in this rule. Explain that you are also going to demonstrate another way of finding the answer to this type of question.

Reveal graphic C. Explain that you can also answer this question using equivalent fractions.

- *How can we find the missing number?* Show that 8 can be multiplied by 4 to give 32 so we can also multiply 3 by 4 to give the missing number 12.
- *What do you notice about the missing numerator?* [It is the answer to the question 'What is  $\frac{3}{8}$  of £32?'] Point out that you write the quantity as the denominator and that the missing numerator will be the answer.

**Key point:** To find a fraction of a quantity, divide by the denominator (to find one part) and multiply by the numerator (to find several parts). An alternative method is to use equivalent fractions.

## 🔍 Spot the mistake

Ask:

- *The statement says ' $\frac{4}{5}$  of 40 = 24'. Is the answer 24 correct?* [no]
- *What could you do to work out the correct answer?* Discuss the two ways of finding the correct answer as outlined above and ask the pupils which method they prefer.
- *What is the correct answer?* [32]

## ✓ Good to go?

Answers: a) 24p    b) £27    c) 35m

## Pupil book practice

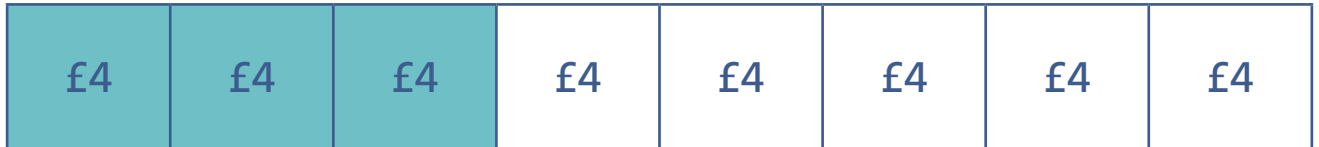
Pages 20 and 21

This practice focuses on finding fractions of numbers and measures. Encourage the pupils to try to find answers using both the methods outlined above and to express their preference for how they like to answer the questions. Observe which pupils take time to find answers and note whether the reason for this is that they still need to learn all their tables and related division facts. If necessary, some pupils can be provided with a list of tables or a multiplication square so that their focus is on the methods rather than on the facts.

➔ **Starting point**

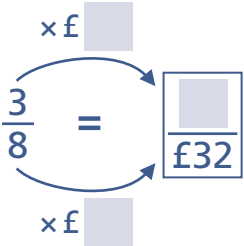
A 

What is  $\frac{3}{8}$  of £32?  $£32 \div 8 \times 3 = £$  



B **Divide** by the **denominator** (to find one part) and **multiply** by the **numerator** (to find several parts).

numerator  $\frac{3}{8}$  of £32 = £12  
denominator

C What is  $\frac{3}{8}$  of £32? 

 **Spot the mistake**

$$\frac{4}{5} \text{ of } 40 = 24$$

 **Good to go?**

a) Find  $\frac{2}{3}$  of 36p.

b) Find  $\frac{3}{4}$  of £36.

c) Find  $\frac{7}{100}$  of 500m.