Fractions, decimals and percentages

# Fractions, decimals and percentages

## **Multiply pairs of fractions**

When multiplying fractions, if no whole numbers are involved, you first multiply the numerators and then multiply the denominators. Look for ways to cancel down so that the answer is always written in its simplest form such as:  $\frac{2}{5} \times \frac{3}{8} = \frac{6}{40} = \frac{3}{20}$ .

Before multiplying whole or mixed numbers, change them into improper fractions.

So 
$$5 \times \frac{3}{4} = \frac{5}{1} \times \frac{3}{4} = \frac{15}{4} = 3\frac{3}{4}$$

$$4\frac{2}{3} \times 1\frac{2}{7} = \frac{14}{3} \times \frac{9}{7} = \frac{126}{21} = 6.$$

#### 1. Multiply the following pairs of fractions.

- **a.**  $\frac{2}{5} \times \frac{1}{2} =$
- **b.**  $\frac{3}{4} \times \frac{1}{12} =$
- **c.**  $\frac{3}{4} \times \frac{2}{9} =$  \_\_\_\_\_
- **d.**  $\frac{5}{16} \times \frac{4}{5} =$  \_\_\_\_\_
- $e \cdot \frac{4}{9} \times \frac{3}{8} =$
- $f_{\star} = \frac{5}{12} \times \frac{4}{5} =$ \_\_\_\_\_
- g.  $\frac{1}{3} \times \frac{9}{10} =$ \_\_\_\_\_
- h.  $\frac{2}{5} \times \frac{3}{4} =$  \_\_\_\_\_

i. 
$$1\frac{1}{4} \times \frac{2}{5} =$$
 \_\_\_\_\_\_

$$j_* = \frac{3}{5} \times 2\frac{1}{2} =$$
\_\_\_\_\_

**k.** 
$$\frac{4}{7} \times 1 \frac{3}{4} =$$

I. 
$$2\frac{3}{4} \times \frac{7}{11} =$$

$$m_*$$
 1  $\frac{7}{8} \times 1 \frac{3}{5} =$ 

$$n_* \quad 2\frac{2}{3} \times 1\frac{1}{2} =$$

**o.** 
$$1\frac{7}{8} \times 2\frac{2}{5} =$$

$$p. \quad 2\frac{2}{3} \times 2\frac{1}{4} =$$
\_\_\_\_\_\_

**q.** 
$$1\frac{3}{4} \times 1\frac{3}{7} =$$

r. 
$$2\frac{1}{4} \times 1\frac{1}{6} =$$

**s.** 
$$1\frac{4}{5} \times 1\frac{1}{4} =$$

$$\frac{1}{2} \times 1 =$$

## Fractions, decimals and percentages

## **Fraction action**

To find a fraction of a number or an amount, you need to divide the number or amount by the denominator (to find the unit fraction) and then multiply the result by the numerator. To find  $\frac{2}{3}$  of 15: 15 ÷ 3 = 5 and 5 × 2 = 10. So  $\frac{2}{3}$  of 15 is 10.

#### 1. Complete these tables.

<u>5</u>	of	240m	
		15kg	
		£63	

<u>2</u> 3	of	1m 23cm	
		£156	
		174kg	

### 2. What is 25% of each of these amounts?

- a. £200 \_\_\_\_\_
- **b.** 3m \_\_\_\_\_
- **c.** 10kg

### 3. What is 10% of each of these amounts?

- **a.** £365 \_\_\_\_\_
- **b.** 3m 50cm \_\_\_\_\_
- **c.**  $6\frac{1}{2}$  kg