# Place value and rounding

Use the next digit to decide whether to round up. Keep zeros needed to show the requested precision.

**Round 0.04786 to two significant figures.**

| | |
|---|---|
| $0.04786$ | The leading zeros do not count. The first two significant digits are 4 and 7. |
| $0.04786 \approx 0.048$ | The next digit is 8, so round the 7 up. |
| $0.048$ | |

**Round 3.996 to two decimal places.**

| | |
|---|---|
| $3.996 \approx 4.00$ | The third decimal digit is 6. The rounding carries through both 9s. |
| $4.00$ | |

# Multiplying decimals and converting to fractions

Use place value to check that the decimal point is in the right place.

**Calculate 0.24 × 0.5.**

| | |
|---|---|
| $24 \times 5 = 120$ | Multiply as whole numbers first. |
| $0.24 \times 0.5 = 0.120$ | The factors have three decimal places altogether. |

$0.12$

**Write 0.375 as a fraction in simplest form.**

| | |
|---|---|
| $0.375 = \frac{375}{1000}$ | Three decimal places means thousandths. |
| $\frac{375}{1000} = \frac{3}{8}$ | Divide top and bottom by 125. |

$\frac{3}{8}$

JUNIOR CYCLE HIGHER LEVEL · CHAPTER PRACTICE

# Decimals

Try the questions before opening the separate answer key. Show one step per line.

### 4.1 · Fluency

Write 0.375 as a fraction in simplest form.

### 4.2 · Variation

Round 0.04687 to three decimal places.

### 4.3 · Choose a method

A 4.8 m ribbon is cut into 0.35 m lengths. How many complete lengths and how much remains?

Check your work: are the sign, units and level of accuracy appropriate?