

Decimal and fractional measures in problems

WHAT THIS LESSON TEACHES

A measurement written as a fraction of a whole unit can also be shown as a decimal, such as three quarters of a litre or 1.5 litres.

- Three quarters of a 2 litre bottle is 1.5 litres.
- A 2.4 m plank cut into 0.6 m pieces gives 4 pieces.

MODEL THIS ON THE BOARD

WORK OUT THREE QUARTERS OF 2 LITRES

- 1 Find one quarter of 2 litres by dividing 2 by 4 to get 0.5 litres.
- 2 Multiply by 3 to find three quarters: 0.5 times 3 equals 1.5 litres.

ANSWER KEY

a) 1.5 litres

b) 4

c) $\frac{2}{5}$

Q1: 7.5 litres

Q2: 3.4 kg

Q3: 2.8 kg

Q4: 4

Q5: $\frac{2}{5}$

a) Always — Any fraction has an exact decimal form.

b) Never — Decimals can be clearer when the fraction is awkward.

c) Always — It is always 1.5 litres so the statement is true always.

d) Always — That is the exact operation for this skill.

EXTENSION SHEET · STRETCH ANSWERS

S1: 7.8 cm

S2: 12.4 cm