

# Maths Mastery

Solve Problems Involving the  
Calculation of Units of Measure

# Length

A joiner needs 12 lengths of wood measuring 245mm and 6 pieces measuring 582mm. The wood is sold in lengths of 3m.

Calculate how many lengths of wood are needed, and how best to cut the lengths so the longest piece is left over.

$245\text{mm} \times 12 = 2940\text{mm} = 2.94\text{m}$  – use 1 length, 6cm left over.

$582\text{mm} \times 6 = 3492\text{mm} = 3.49\text{m}$  – use 2 lengths  
 $582\text{mm} \times 5 = 2910\text{mm} = 2.91\text{m}$ , so 1 length will give 5 pieces, leaving 9cm.

582mm will be cut from 3<sup>rd</sup> length leaving 2.418m

**3 lengths will be needed, leaving a piece 2.418m long and 2 pieces 9cm and 6cm**

Write some of your own length questions for some others to solve.

Hide  
Answers

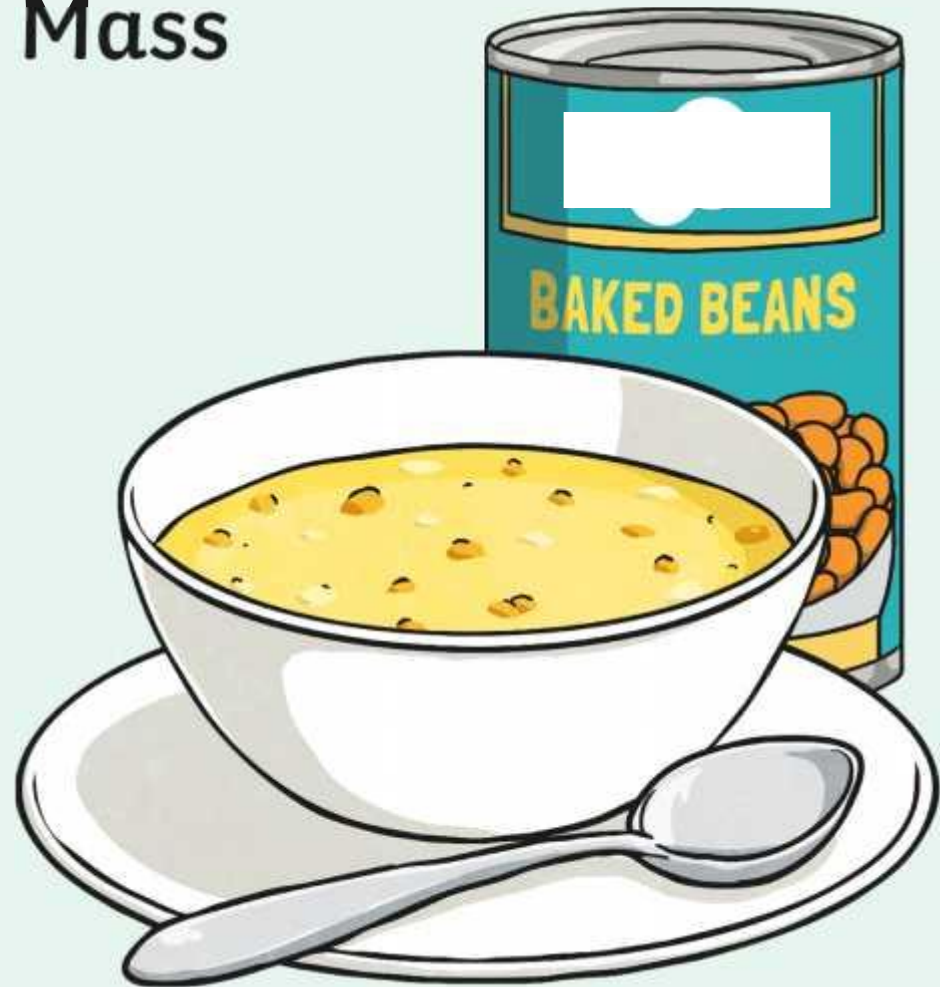
## Mass

A tin contains 425g baked beans in sauce. The tin itself weighs 60g. How much will a pack of 6 tins weigh in kilograms?

2.91kg

A box of 12 tins of condensed soup weighs 4.02kg. The tin itself weighs 40g. How much does the soup in each tin weigh in grams?

295g



Write your own questions involving the conversion of kilograms and grams for others to solve.

Hide  
Answers

# Capacity

A supermarket sells branded mineral water in a pack of  $8 \times 500\text{ml}$  for £1.99 and its own brand mineral water in packs of  $6 \times 500\text{ml}$  for £1.40.

Explain why the own brand is cheaper per bottle.

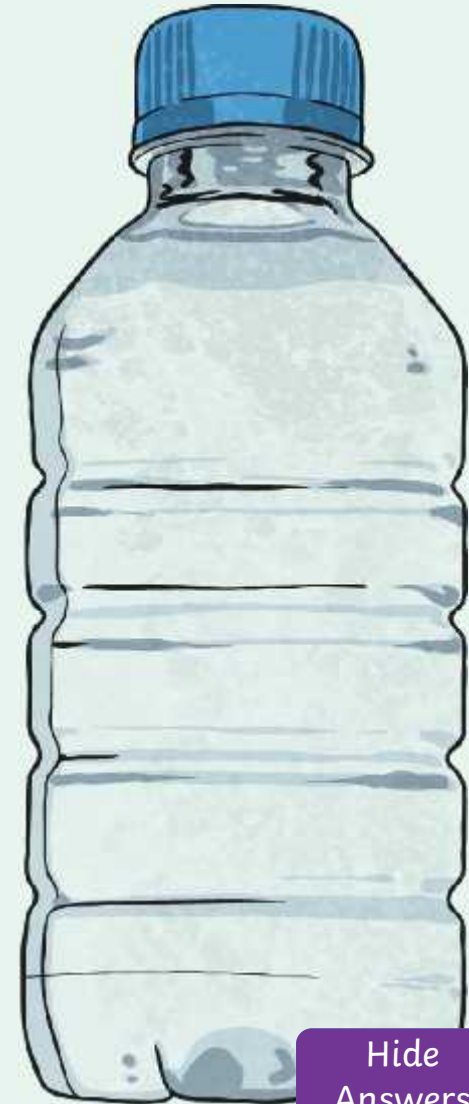
$$1.99 \div 8 = 25\text{p} \quad 1.40 \div 6 = 23\text{p}$$

Calculate the cost of 1 litre of mineral water in each pack to the nearest penny.

branded 50p, supermarket own brand 47p

Another brand is sold in packs of  $10 \times 330\text{ml}$  for £2. Show how this is more expensive per litre than the other 2 packs.

$10 \times 330\text{ml} = 3.3\text{l}$  which is less than the 4l of the branded, but is sold for 1p more.



Hide  
Answers

