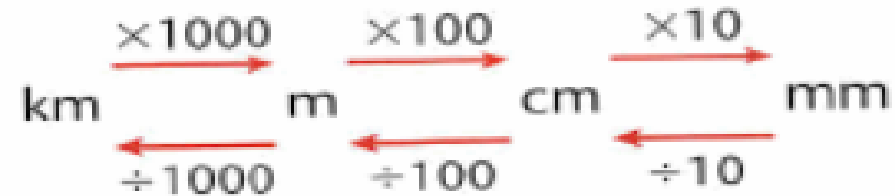


L.O. Solve problems involving conversions.

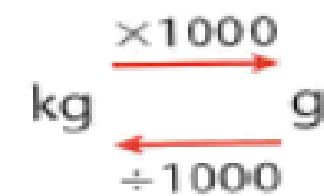
What are the four operations we can use?

What are the key conversions we can use?

#### UNITS OF LENGTH



#### UNITS OF MASS



#### UNITS OF CAPACITY



**A**

- 1 A park has a perimeter of 1700 m. Kylie runs round the park five times. How far has she run altogether in kilometres?
- 2 A cafe has 7.8 litres of soup. It provides 30 equal servings. How much is each serving in millilitres?
- 3 One can of peas weighs 200 g. The cans on the shelves of a shop weigh 7.4 kg altogether. How many cans are on the shelves?
- 4 One gallon is 4.5 litres. What is nine gallons in litres?
- 5 A lawn is 18.4 m wide. A mower cuts strips of grass 80 cm wide. How many times will the mower need to be pushed the length of the lawn in order to cut the grass?
- 6 Each bag of chips weighs 1500 g. What is the total weight of six bags?

**B**

- 1 One bottle of vinegar holds 350 ml. How much vinegar is in eighteen bottles in litres?
- 2 One pound is 1.6 US dollars
  - a) How many dollars is £8.30?
  - b) How many pounds is 72 dollars?
- 3 Each pin is made from 3.4 cm of wire. How much wire is needed for 4000 pins in metres?
- 4 Pots of mustard hold 190 ml. How many pots can be filled from 4.75 litres?
- 5 A patio is 7 m long and 5.46 m wide. What is the area of the patio?
- 6 A small jar of hand cream holds 50 ml. How many jars can be filled from 3.8 litres?

**C**

- 1 A pot of gold fish food holds 13 g. How much food is there in 175 pots in kilograms?
- 2 Each magazine in a stack is 18 mm thick. The stack is 61.2 cm tall. How many magazines are there?
- 3 Bottles of washing up liquid each hold 435 ml. There are 24 bottles in a box. How much washing up liquid is there in a box in litres?
- 4 One kilogram is 2.2 pounds weight (lbs). An American footballer weighs 277.2 lbs. What is this in kilograms?
- 5 The perimeter of a rectangular room is 22 m. The longest side is 6.5 m. What is the area of the room?
- 6 Each can of fruit weighs 350 g. How many cans would have a total weight of 15.4 kg?

## L.O. Solve problems involving conversions.

1. Why is 7m 5cm the same as 7.05m and not 7.5m?
2. Here are a range of lengths. Write these lengths in order, starting with the shortest.

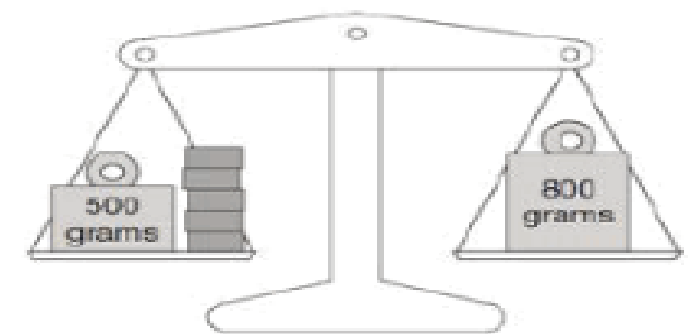
1/4m, 35mm, 4.5cm, 35cm, 0.0025km

3. A pencil weighs about 3g. A school buys 135 packs of 12. How much will these weigh in kg?

One side of an isosceles triangle is 8cm long.  
Its perimeter is 32cm long. How long are the other two sides?  
Give **two** different answers.

On a bike-riding holiday, Asha rode 105km in 5 days. Each day she rode 6km less than the previous day. How many km did she ride every day?

Sam has five blocks which are all the same.  
She balances them on the scale with two weights.  
Calculate the weight of one block.




# ANSWERS

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## **A**

- 1** 8.5 km
- 2** 260 ml
- 3** 37
- 4** 40.5 litres
- 5** 23
- 6** 9 kg

## **B**

- 1** 6.3 litres
- 2** **a)** 13.28 dollars  
**b)** £45
- 3** 136 m 
- 4** 25
- 5** 38.22 m<sup>2</sup>
- 6** 76

## **C**

- 1** 2.275 kg
- 2** 34
- 3** 10.44 litres
- 4** 126 kg
- 5** 29.25 m<sup>2</sup>
- 6** 44

## L.O. Solve problems involving conversions.

1. Why is 7m 5cm the same as 7.05m and not 7.5m?

7.5m will be 7m 50cm

2. Here are a range of lengths. Write these lengths in order, starting with the shortest. 35mm, 4.5cm,  $\frac{1}{4}$  m, 35cm, 0.0025km

25 cm 3.5cm

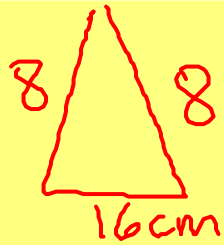
$\frac{1}{4}$ m, 35mm, 4.5cm, 35cm, 0.0025km x 1000 to get m  
(3) (1) (2) (4) 2.5m = 250cm

3. A pencil weighs about 3g. A school buys 135 packs of 12. How much will these weigh in kg?

$$12 \times 3g = 36g \text{ per pack}$$

$$36 \times 135 = 4860g = 4.86kg$$

One side of an isosceles triangle is 8cm long.  
Its perimeter is 32cm long. How long are the other two sides?  
Give **two** different answers.



$$P = 32 \text{ cm}$$

$$- 16 \text{ cm} = 16 \text{ cm} \text{ or}$$



$$32 - 8 = 24 \text{ cm}$$

$$24 \div 2 = 12$$

On a bike-riding holiday, Asha rode 105km in 5 days. Each day she rode 6km less than the previous day. How many km did she ride every day?

1	9	24
2	9	18
3	9	12
4	9	6
5	9	24

$$105 - 60 = 45 \div 5 = 9$$

Day 1 - 33  
2 - 27  
3 - 21  
4 - 15  
5 - 9

Sam has five blocks which are all the same.  
She balances them on the scale with two weights.  
Calculate the weight of one block.

$$300 \div 5 = 60 \text{ g}$$

