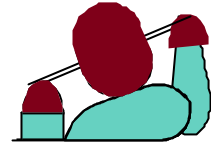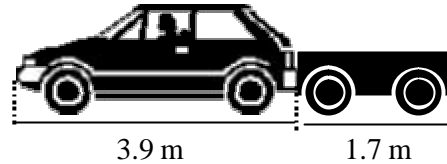# Length Problems

1. A car pulls a trailer.
   The car is 3.9 metres long.
   The trailer is 1.7 metres long.

   Find the total length.

   3.9 m   1.7 m

2. The table gives the dimensions of two types of buses.

Type of bus		Height	Length
Single-decker		3 m	12 m
Double-decker		4.4 m	8.4 m

   (a) How much taller is the double-decker than the single-decker?
   (b) How much longer is the single-decker than the double-decker?

3. The diagram shows a fence.
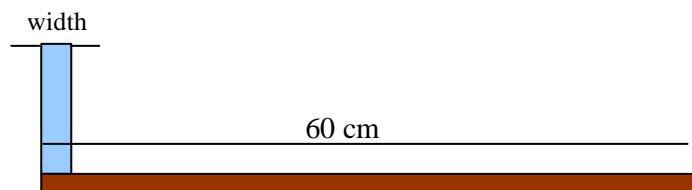   Each fence panel is 2 metres wide.
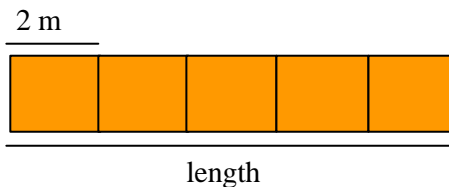
   How long is the fence?

   2 m

   length

4.

   A swimming pool is 25 metres long.
   Sue swims 8 lengths.
   How far has she swum?
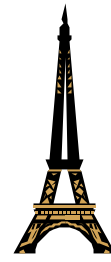
5. A shelf is 60 cm long.

   width

   60 cm

   (a) How many books, each 6 cm wide fit on the shelf?
   (b) How many books, each 8 cm wide fit on the shelf?

6.   The height of the Eiffel Tower is 324 metres.
     The height of the Blackpool Tower is 158 metres.

     How much taller is the Eiffel Tower than the Blackpool Tower?
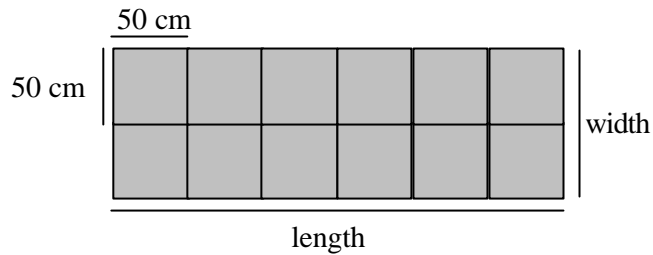
7.   A shelf is 1.5 metres long. CDs are 1 cm wide.
     How many CDs fit on the shelf?

8.   The diagram shows a path made from square paving stones.

     (a) How wide is the path?
     (b) How long is the path?

     Give your answers in metres.

9.   I have a ball of string 5 metres long.
     (a) How many 30 cm lengths of string can I cut from this ball?
     (b) How much string will be left?

10. £1 coins are 3.15 mm thick.
     (a) How tall is a pile of twenty £1 coins?
     (b) How many coins do you need to make a pile 5 cm high?

11. Four kitchen units stand along one wall in a kitchen.
     Each unit is 60 cm wide. The wall is 2.85 metres long.
     An ironing board is 40 cm wide.

     Is there enough space left at the end of the wall
     to stand the ironing board?
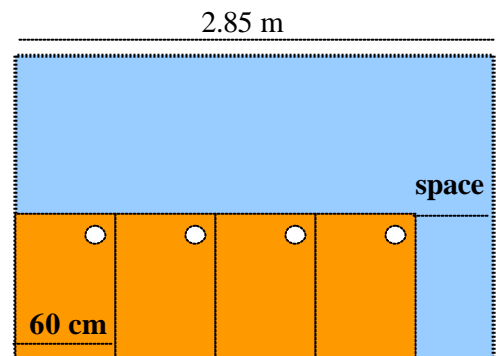
12. A wall is 7.8 m long and 2.8 m high.
     The wall is to be covered in plain wallpaper.
     Each roll of the wallpaper is 52 cm wide
     and 10 m long.

     (a) How many strips of wallpaper are needed?
     (b) What is the total length of wallpaper needed?
     (c) How many rolls of wallpaper are needed?
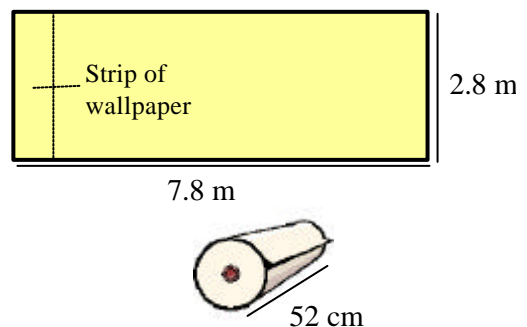
> **Teacher Notes**

Unit   Foundation Level, Working in 2 and 3 dimensions

Notes
The previous pages include 12 problems set in range of real contexts. Those on page 1 are easier and do not require the conversion of metric units. Those on page 2 are more difficult and some require metric conversions.

Answers
1   5.6 m
2   (a) 1.4 m   (b) 3.6 m
3   10 m
4. 200 m
5. (a) 10 books   (b) 7 books
6. 166 m
7   150
8   (a) 1 m   (b) 3 m
9. (a) 16   (b) 20 cm
10. (a) 63 mm   (b) 16
11. Yes – the space is 45 cm wide
12. (a) 15 strips   (b) 42 m   (c) 5 rolls