



Length and perimeter

- Measuring and drawing to the nearest millimetre
- Estimating distances using appropriate units
- Calculating the perimeter of a figure

Keywords

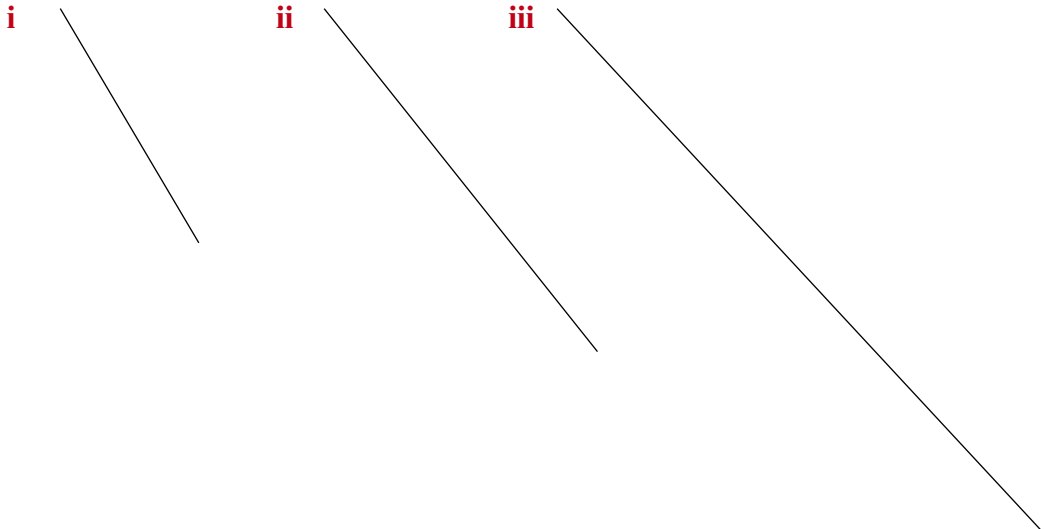
You should know

explanation 1

1 Measure the length of each line. Give your answers to the nearest 0.1 cm.

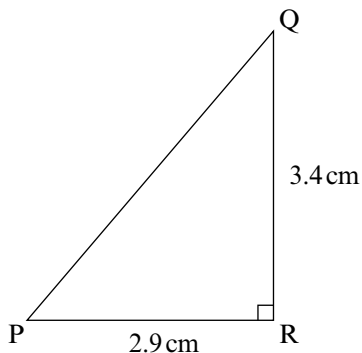
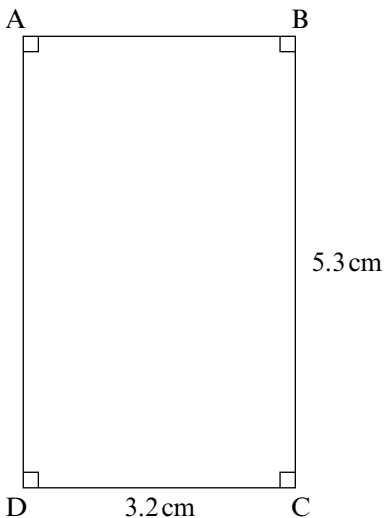
- a _____
- b _____
- c _____
- d _____

2 a Measure the length of each line. Give your answers to the nearest millimetre.



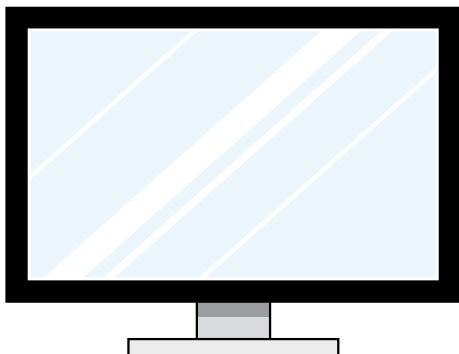
- b One of the lines has the same length as a line in question 1. Which lines are they?

- 3 a** Draw each of the diagrams below as accurately as you can using the measurements shown.

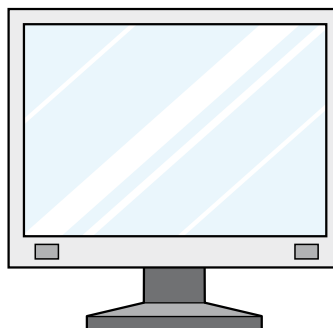


- b** Measure these distances to the nearest 0.1 cm.
- i** AC **ii** BD **iii** PQ
- c** What do you notice about the lengths of AC and BD?
- 4** Here are two pictures of computer monitors. The screen size is measured along a diagonal of the rectangle containing the picture.
- a** Measure each screen size as shown to the nearest 0.1 cm.
- b** The real screen sizes are ten times the sizes shown here.
- Write down the real screen size in each case.

i



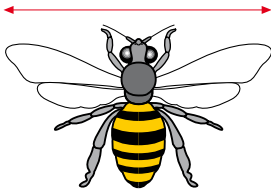
ii



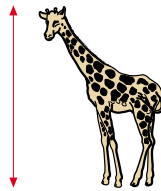
explanation 2

- 5 Choose from the numbers and units given in the table to make the measurements described below. Pictures are not drawn to scale.

Numbers	Units
105, 0.05, 5.4, 27, 68, 11	mm, cm, m

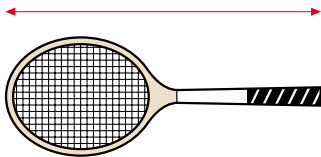


Wingspan of bumblebee

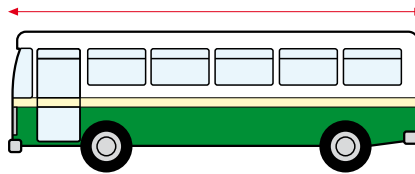


Height of giraffe

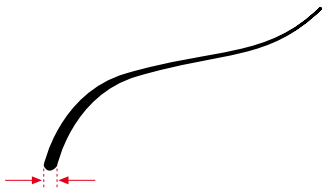
Choose the most sensible units first, then look for a suitable number.



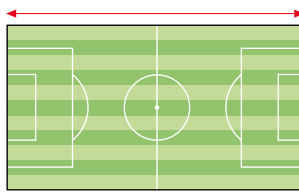
Length of a tennis racquet



Length of a bus



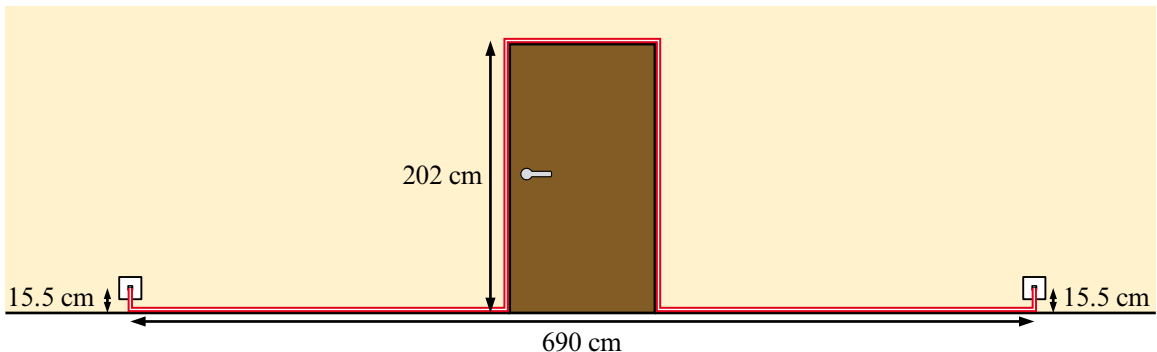
Thickness of a human hair



Length of Wembley pitch

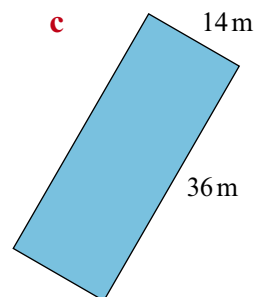
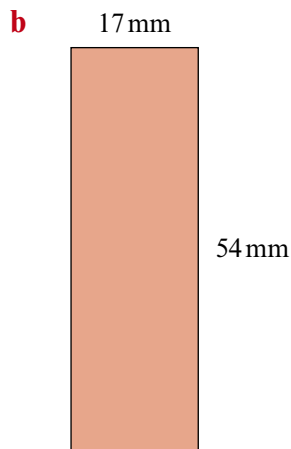
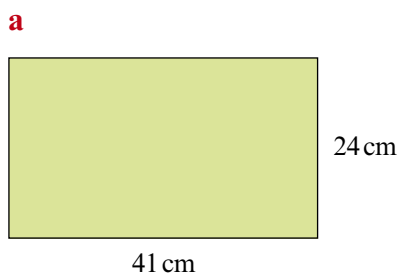
- 6 The diagram shows the path to be followed by cable linking two telephone sockets. The cable passes over a doorway at a height of 202 cm.

How much cable is needed?

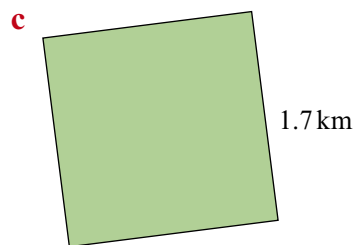
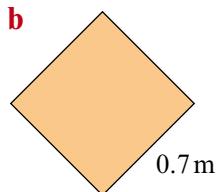
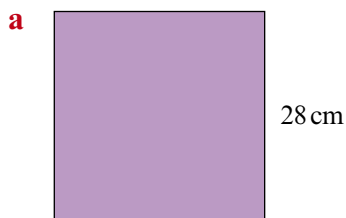


explanation 3

7 Work out the perimeter of each of these rectangles.

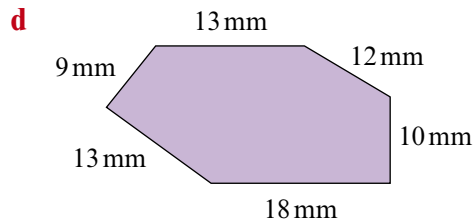
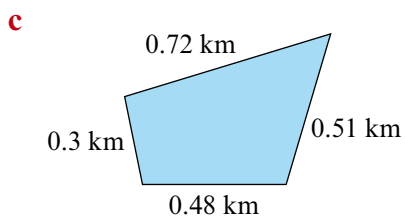
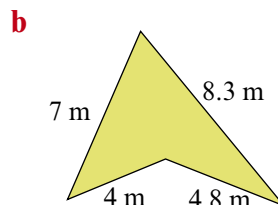
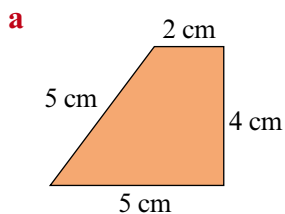


8 Work out the perimeter of each of these squares.

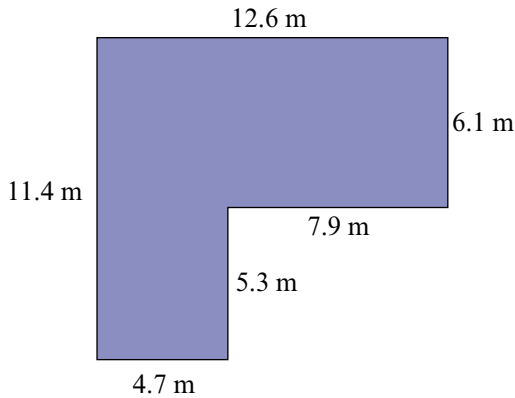


9 The perimeter of a square is 84 cm. What is the length of each side?

10 Work out the perimeter of each of these quadrilaterals.

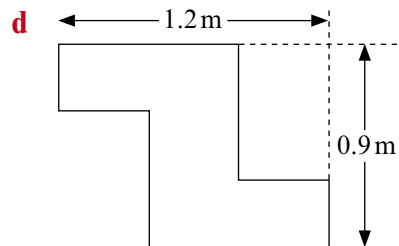
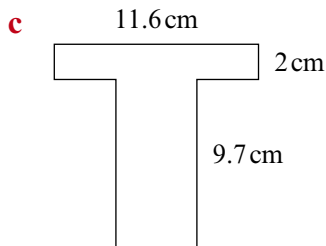
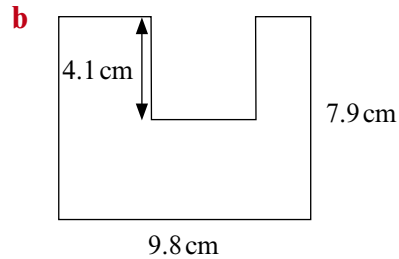
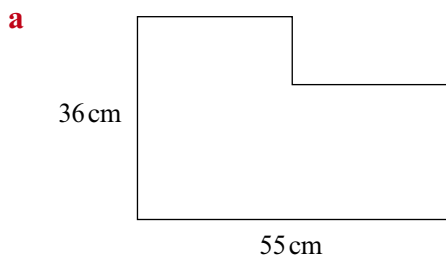


11 a Work out the perimeter of the shape below.

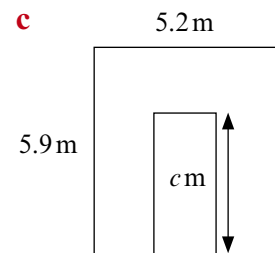
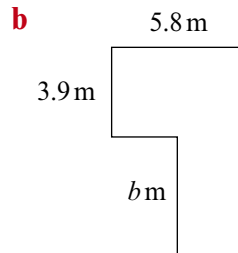
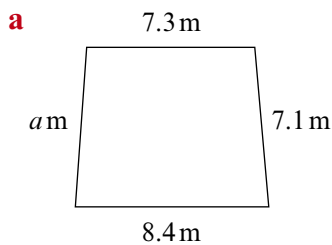


b Show that the perimeter can be worked out by adding two of the lengths shown and doubling the answer.

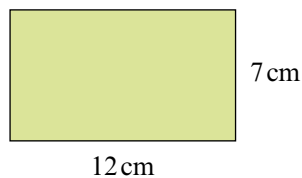
12 Work out the perimeter of each of these figures.



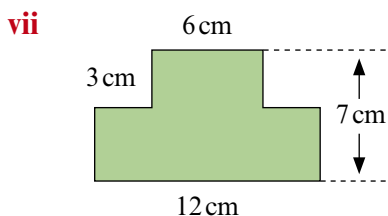
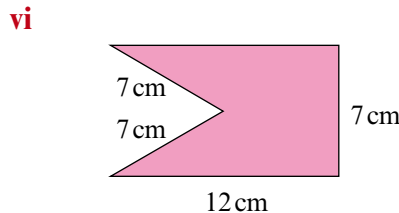
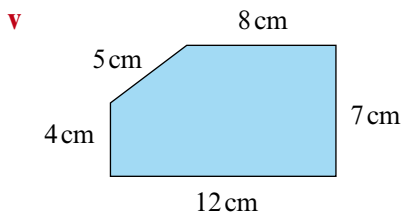
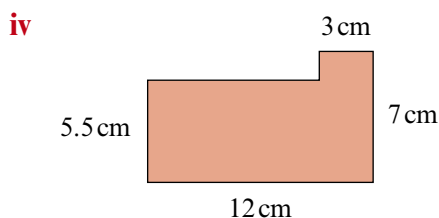
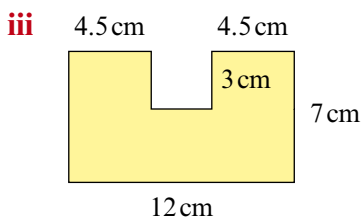
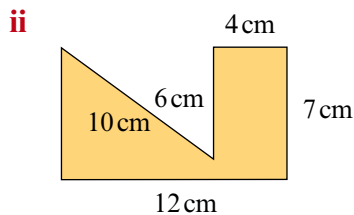
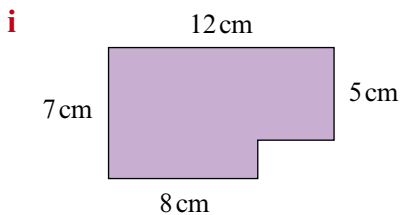
13 The perimeter of each of these figures is 30 m. Calculate the value of a , b and c .



14 a Without working out the perimeters, find which of the shapes below have the same perimeter as this rectangle.



b Find the perimeter of each shape.



15 Find the perimeter of this shape.

