



Length and perimeter

- Measuring to the nearest millimetre
- Converting between millimetres, centimetres and metres
- Calculating the perimeter of a figure

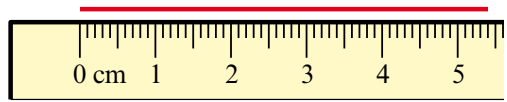
Keywords

You should know

explanation 1

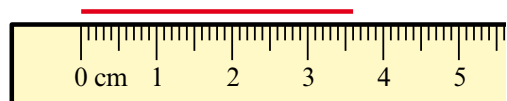
1 The length of this line is 5 cm and 4 mm.

- a** Write this measurement in millimetres.
- b** Write this length in centimetres.



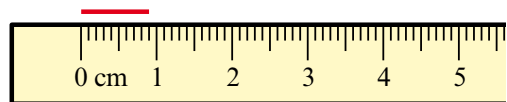
2 The length of this line is 3 cm and 6 mm.

- a** Write this measurement in millimetres.
- b** Write this measurement in centimetres.



3 The length of this line is 9 mm.

Write this measurement in centimetres.



4 Measure the length of each line. The first one has been done for you.

- a** _____ Length = 8 cm 2 mm
- b** _____
- c** _____
- d** _____
- e** _____

explanation 2

- 5** Record your results from question 4 in the following table. The first one has been started for you.

	Measurement in cm and mm	Measurement in mm	Measurement in cm
a	8 cm 2 mm	82 mm	
b			
c			
d			
e			

- 6** Copy and complete the following table.

Measurement in cm and mm	Measurement in cm	Measurement in mm
1 cm 3 mm		
2 cm 5 mm		
5 cm 1 mm		
8 cm 9 mm		
0 cm 7 mm		

- 7** Copy and complete the following table.

Measurement in cm and mm	Measurement in mm	Measurement in cm
3 cm 5 mm		
	45 mm	
		7.6 cm
	185 mm	
6 cm 2 mm		

8 Draw these lines to the nearest millimetre.

a 6 cm 5 mm

b 3 cm 2 mm

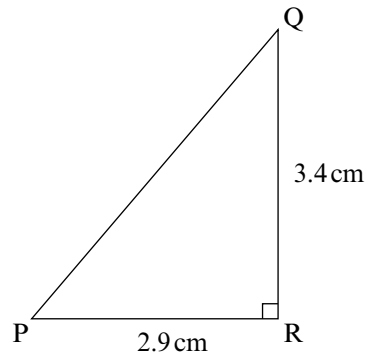
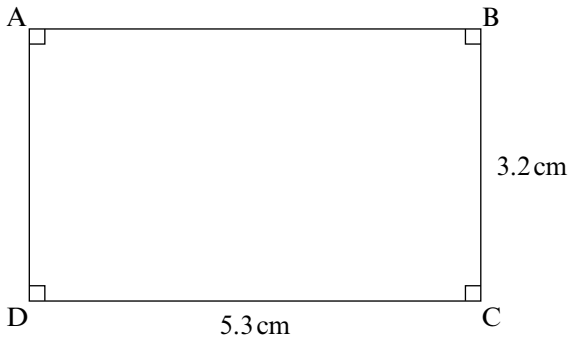
c 4.1 cm

d 6.7 cm

e 75 mm

f 58 mm

9 a Draw each of the diagrams below as accurately as you can, using the measurements shown.



b On your drawings, measure these distances to the nearest millimetre.

i AC

ii PQ

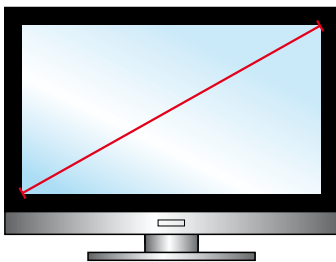
10 Here are pictures of three computer monitors. The screen size is the length of the red line. (Screen sizes are measured along a diagonal of the rectangle containing the picture.)

a Measure each screen size on your book page to the nearest millimetre.

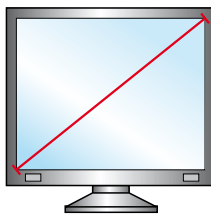
b The real screen sizes are ten times the sizes shown here.

Write down the three real screen sizes.

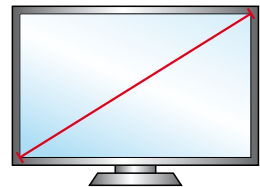
i



ii



iii



11 32 cm 4 mm 3.5 m 430 mm 0.2 m 85 mm

- a** Change these measurements so they are all in centimetres.
- b** Use your answer to part **a** to put the original lengths in order of size starting with the smallest.

explanation 3a

explanation 3b

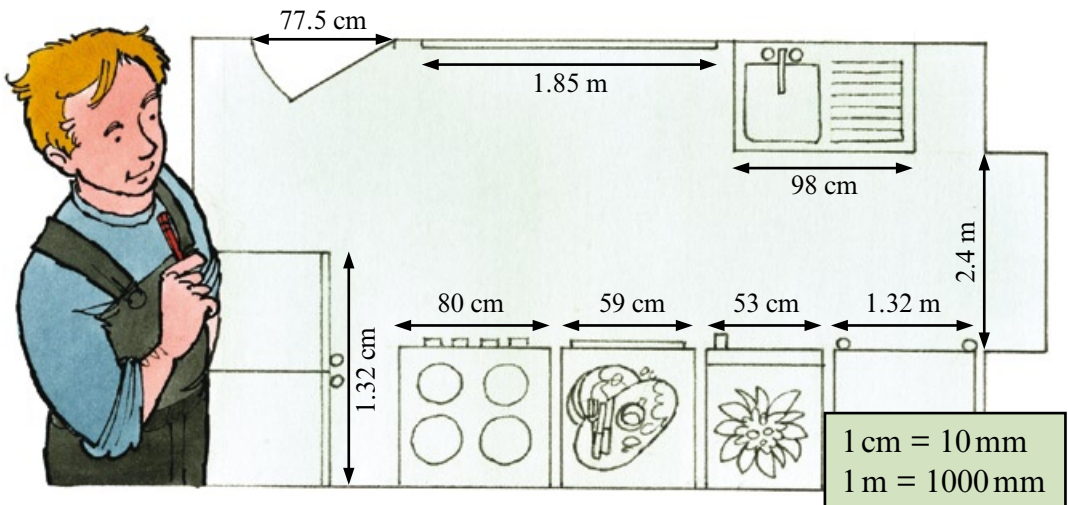
12 Two pupils are measuring different lengths in their classroom.

- a** They measure the height of a door as 2 m and 6 cm. Write this measurement in
 - i** centimetres
 - ii** millimetres
- b** They measure the width of a door as 84 cm. Write this measurement in
 - i** millimetres
 - ii** metres

13 Copy and complete.

- a** 3 cm = mm
- b** 25 mm = cm
- c** 7.5 cm = mm
- d** 4.3 cm = mm
- e** 420 mm = cm
- f** 6 mm = cm
- g** 127 cm = m
- h** 3.2 m = cm
- i** 1230 mm = m

14 Bob is fitting a new kitchen. He wants all of the measurements to be in millimetres.



Write each of the labelled measurements in millimetres.

15 Work out which measurement is bigger. Give a reason for each answer.

- a** 27 mm, 2.5 cm **b** 8.9 cm, 91 mm **c** 240 cm, 0.25 m
d 0.8 m, 760 mm **e** 58.2 cm, 590 mm **f** 3020 mm, 3.1 m

16 Put these lengths in order of size starting with the smallest.

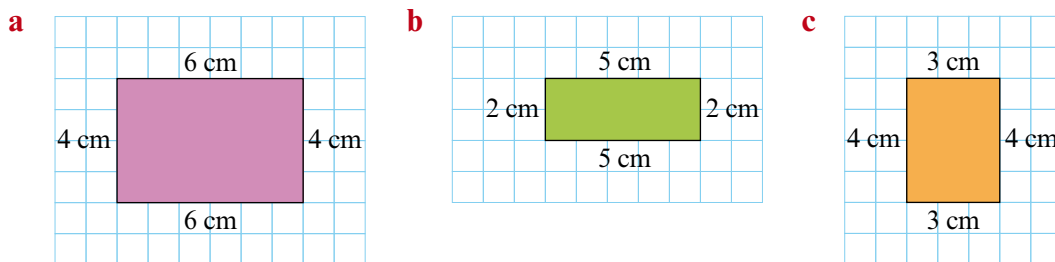
- a** 2.6 m 204 cm 35 mm 4 cm
b 86 cm 112 mm 1.2 m 43 cm
c 125 cm 78 mm 1.2 m 0.3 m 350 mm 7 cm 2 mm
d 450 mm 0.4 m 48 cm 49 mm 0.04 m 46 cm 8 mm

17 Work out the total of 8.5 cm, 3.2 cm and 75 mm. Give your answer in centimetres.

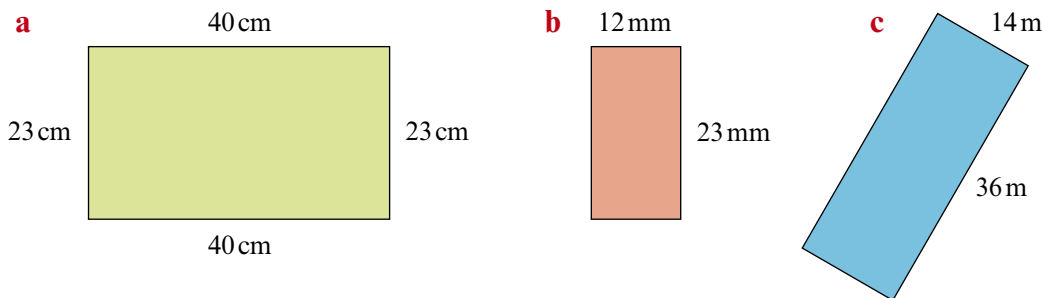
18 Rashid is repairing some fencing. He needs one piece of wood 1.2 m long and two pieces 85 cm long. Can he cut these pieces from a plank of wood 3 m long?

explanation 4

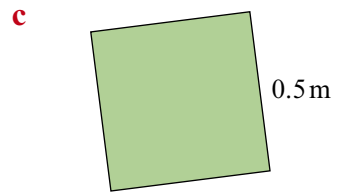
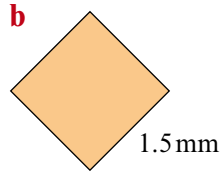
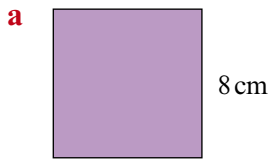
19 Work out the perimeter of each rectangle.



20 Work out the perimeter of each rectangle.



21 Work out the perimeter of each square.

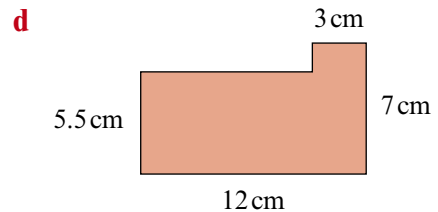
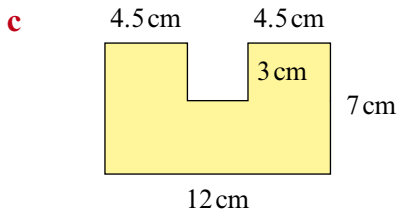
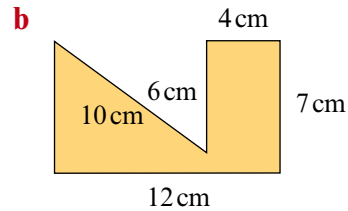
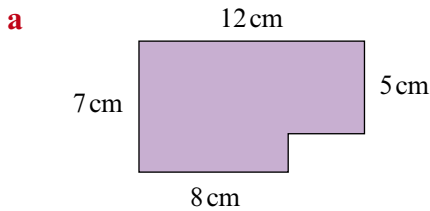
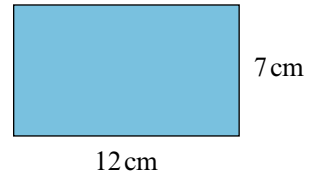


22 a A square has side length 25 cm. What is the perimeter of the square?

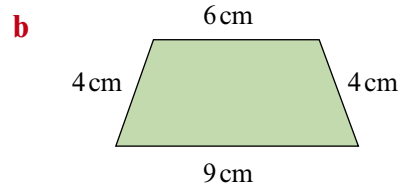
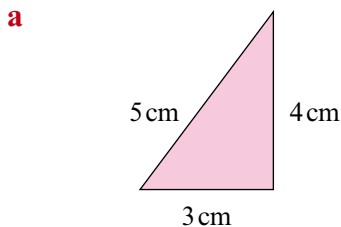
b The perimeter of a square is 84 cm. What is the length of each side?

explanation 5

23 Which of the shapes below have the same perimeter as this blue rectangle?

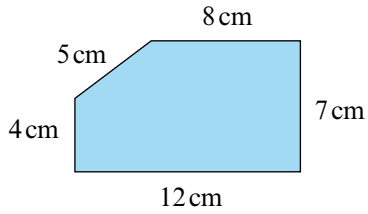


24 Find the perimeter of each shape.

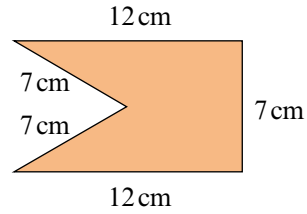


25 Find the perimeter of these shapes.

a

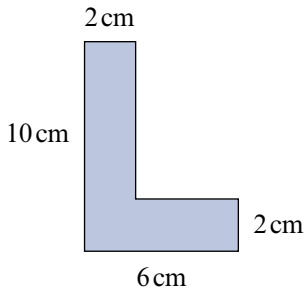


b

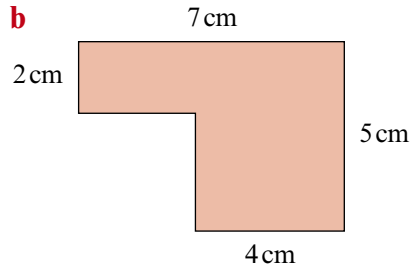


26 Find the perimeter of each shape.

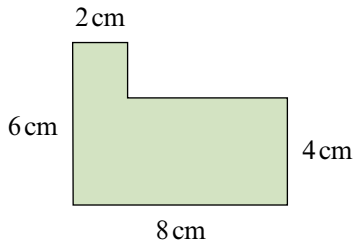
a



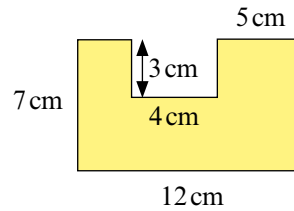
b



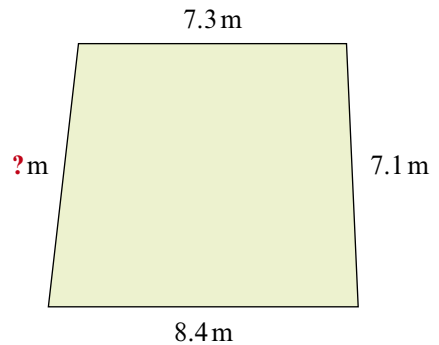
c



d



27 The perimeter of the trapezium is 30 m. Find the missing length.



28 The perimeter of the rectangle is 20 m. The base of the rectangle is 6.5 m long. What is its height?

