

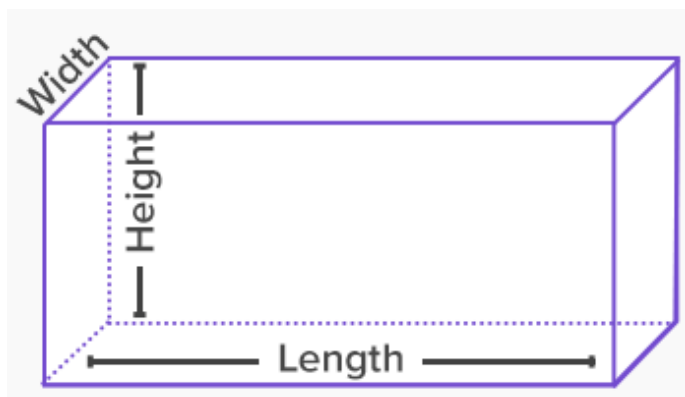
Mathematics



Task 1 – Using non-standard and standard units of measure to measure the length of an object

Length is the term used for identifying the size of an object or distance between two points.

Below is a diagram to show how length, height and width are used. In this pack you will be focusing on measuring the length of an object.



There are two ways that you can measure the length of an object and that is to use non-standard units of measure and standard units of measure.

Nonstandard units of measurement

They are units of measurement that aren't typically used, such as a pencil, an arm, a toothpick, or a shoe.

examples

The pencil is 15 blocks long.



The pencil is 6 paper clips long.

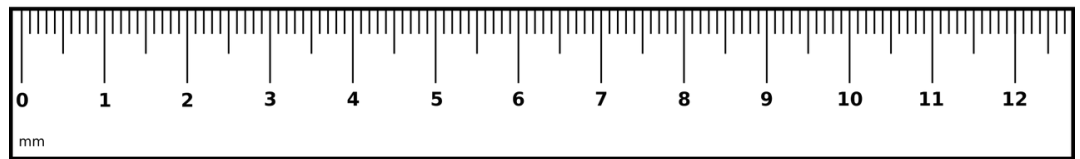
The bar is 6 handspans long.



The bar is 4 'feet' long.

Standard units of measurement

They are units of measurement that are typically used within each measurement system, such as inches, feet, metres, centimetres and millimetres.

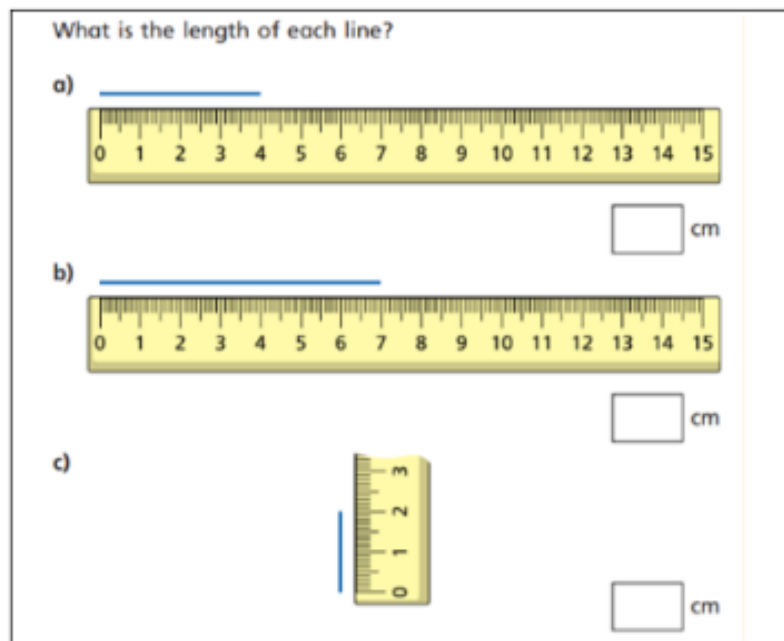


Can you measure different objects around your house using a range of non-standard units of measure and standard units of measurement? You could record your results in a table and you could even think about comparing the lengths of different objects.

<u>Non-standard units of measure</u>	<u>Standard units of measure</u>

Task 2 – Measuring an object

Can you tell me how long each of the lines are below?



Write the length of each line to the nearest millimetre.

a) 



mm

b) 



mm

c) 



mm

Can you tell me how long the paintbrush and toy car are? Be careful because I might not have started measuring from zero.

How long is the paintbrush?




The paintbrush is _____ cm long.

The paintbrush is _____ mm long.

How long is the toy car?




The toy car is _____ cm long.

The toy car is _____ mm long.

Task 3 – Drawing lines

Can you draw the length of the line below? If you do not have a ruler you could think about using a range of non-standard units of measure instead?

Use a ruler to draw lines of these lengths.

a) 5cm



b) 8cm



c) 6cm



Use a ruler to draw lines of these lengths.

a) 5.5cm



b) 82mm



c) 61mm



Challenge – Can you draw an examples of your own lines and then measure them using **cm** and **mm**?

Task 4 – Converting cm to mm

Centimetres = **cm**

Millimetres = **mm**

$$1\text{cm} = 10\text{mm}$$

Can you use the table below to convert the centimetres into millimetres?

There are 10 millimetres (mm) in 1 centimetre (cm).

Use the bar models to complete the sentences.

1 cm
10 mm

a)

1 cm	1 cm	1 cm

There are mm in 3 cm.

b)

1 cm	1 cm	1 cm	1 cm	1 cm	1 cm	1 cm

There are mm in 7 cm.

c)

10 mm	10 mm	10 mm	10 mm

There are 40 mm in cm.

Challenge – Can you come up with any of your own examples? Can you see how converting cm to mm and mm to cm you can use your knowledge of the ten times tables?

Task 5 – Converting cm to m

Centimetres = **cm**

Metres = **m**

$$100\text{cm} = 1\text{m}$$

Can you use the table below to convert the centimetres into metres?

There are 100 centimetres (cm) in 1 metre (m).
Use the bar models to complete the sentences.

1 m
100 cm

a)

1 m	1 m	1 m

There are cm in 3 m.

b)

1 m	1 m	1 m	1 m	1 m	1 m

There are cm in 6 m.

c)

100 cm	100 cm	100 cm	100 cm	100 cm

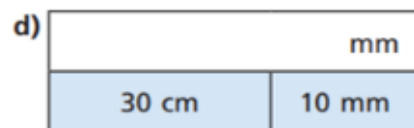
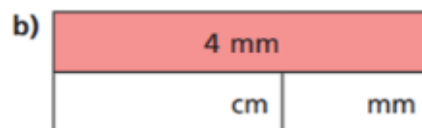
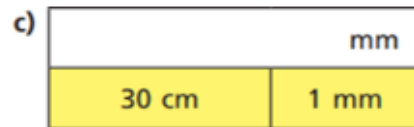
There are 500 cm in m.

Challenge – Can you can come up with any of your own examples?

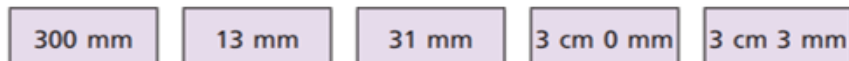
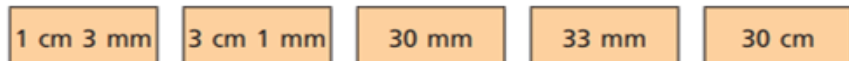
Task 6 - Converting

Can you use the table above to help you to convert **cm** to **mm** and **mm** to **cm**?

Complete the bar models.

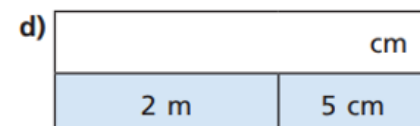
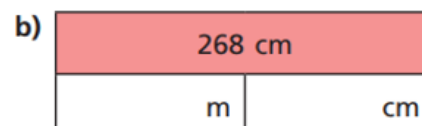
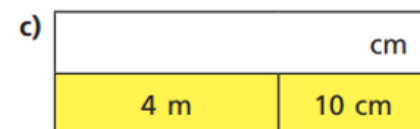
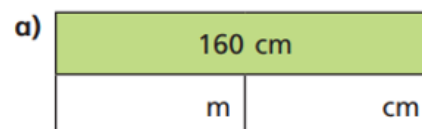


Match the equivalent lengths.



Can you use the table above to help you to convert **cm** to **m** and **m** to **cm**?

Complete the bar models.

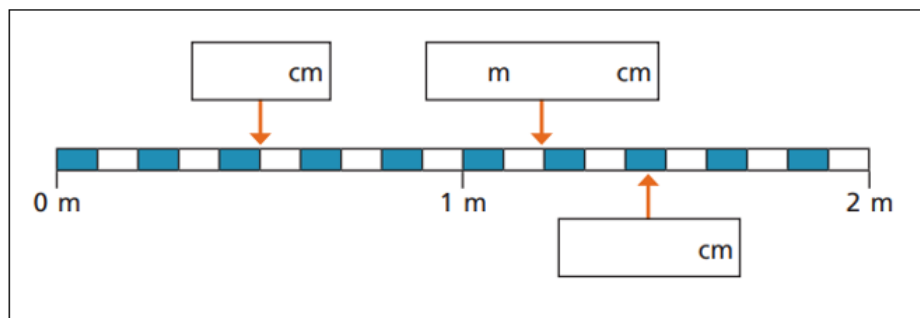


Complete the table to show equivalent lengths and continue the pattern.

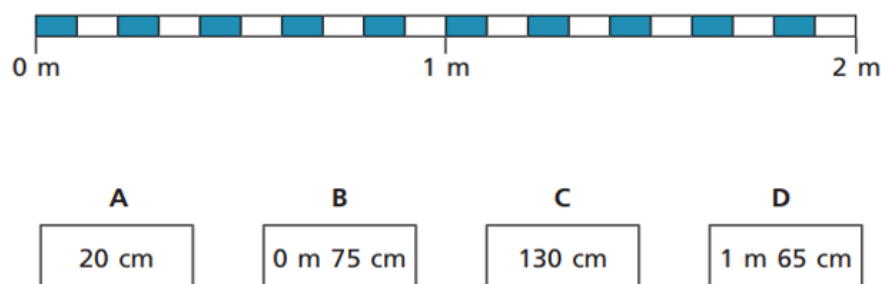
cm	m and cm
310 cm	3 m and 10 cm
320 cm	m and cm
330 cm	m and cm
cm	3 m and 40 cm
cm	3 m and 50 cm
cm	m and cm
cm	m and cm

Task 7

Can you put the measurements onto the line?



Draw an arrow to show the position of each measurement.

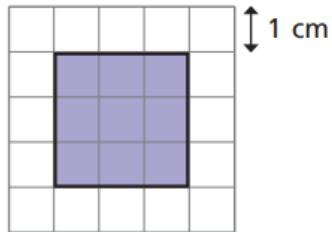


Task 8 - Perimeter

The **perimeter** is the distance all the way around the outside of a 2D shape. To work out the **perimeter**, add up the lengths of all the sides.

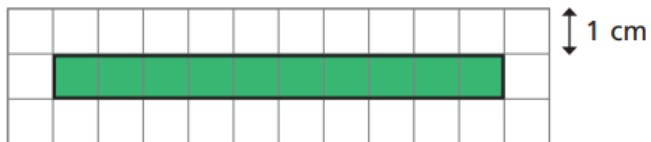
Can you work out the perimeter of the shapes below? You can use the square grids to help you.

a)



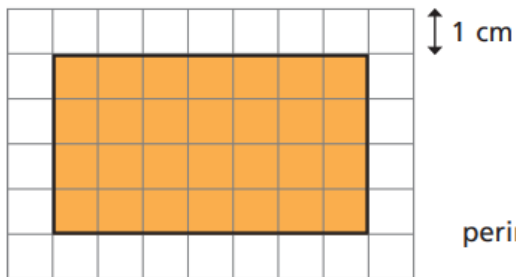
perimeter =

b)



perimeter =

c)

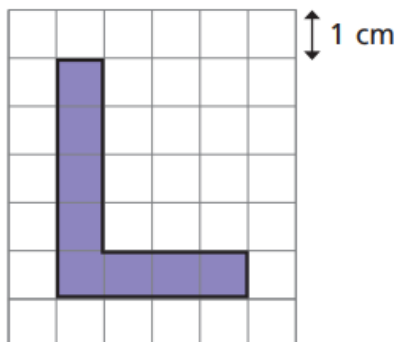


perimeter =

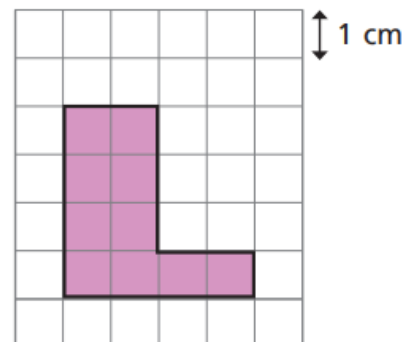
Which of the hexagons has the greatest perimeter?

Show all of your workings.

A

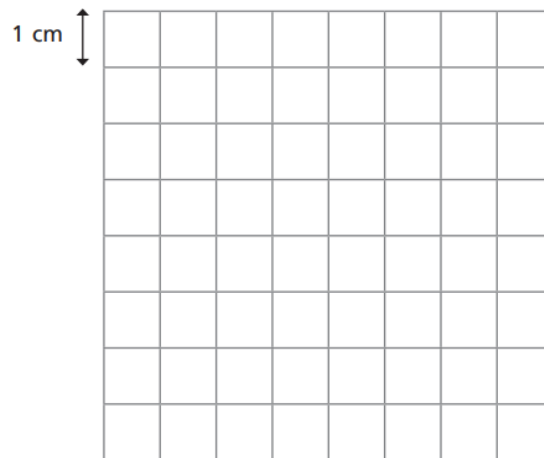


B

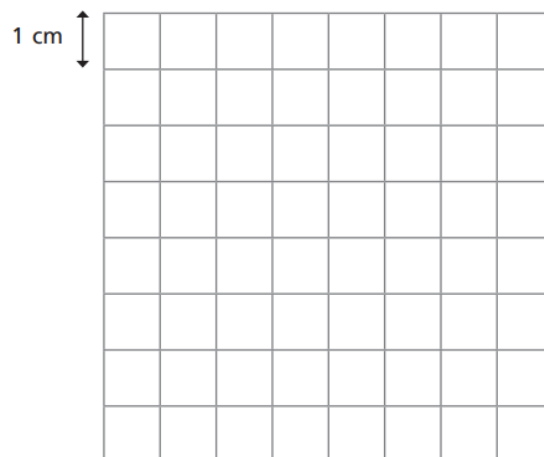


Task 9 – Completing the calculation

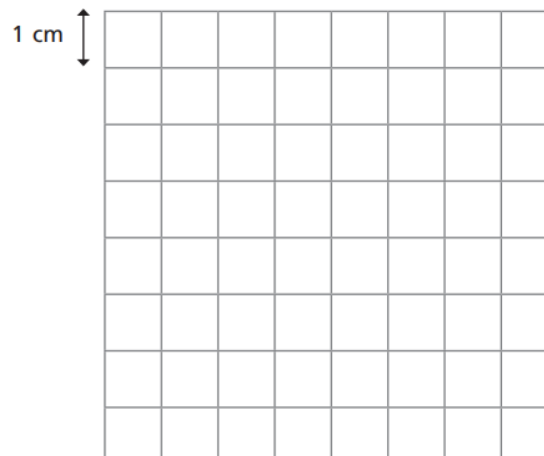
Draw two different rectangles with a perimeter of 10cm.



Draw two different rectangles with a perimeter of 14cm.

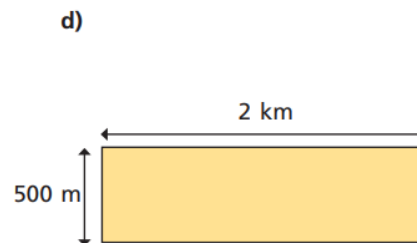
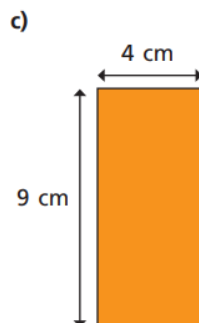
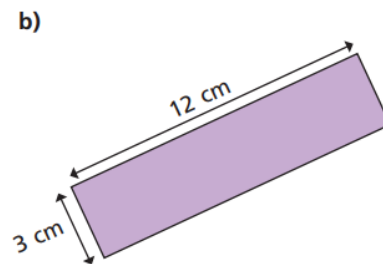
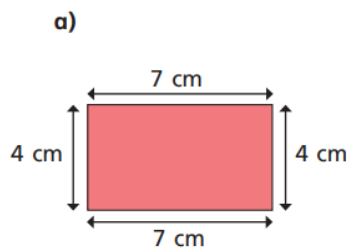


Draw two different rectangles with a perimeter of 16cm.



Task 10 – Perimeter

Work out the perimeter of the rectangles.



Each of these rectangles has a perimeter of 24cm. work out the missing lengths and label the diagrams.

