

WAL: how to convert between different units of measure (mm, cm and m).

Vocabulary

millimetres (mm)

centimetres (cm)

metres (m)

convert

How many millimetres make one centimetre?

Does looking closely at this ruler help us answer this question?



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

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

$$1\text{ cm} = \underline{\quad}\text{ mm}$$

$$\underline{\quad}\text{ cm} = 70\text{ mm}$$

$$12\text{ cm} = \underline{\quad}\text{ mm}$$

$$220\text{ mm} = \underline{\quad}\text{ cm}$$

$$\underline{\quad}\text{ cm} = 25\text{ mm}$$

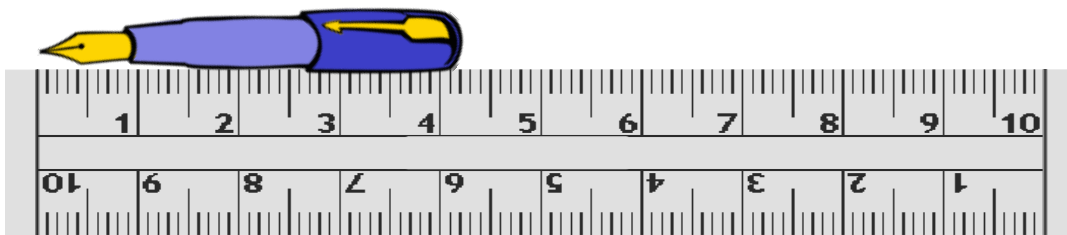
$$5.8\text{ cm} = \underline{\quad}\text{ mm}$$

To convert from **centimetres to millimetres**,
multiply by 10.

To convert from **millimetres to centimetres**,
divide by 10.

What is the length in cm and mm?

What is the length in just mm?



What is the length of this line in centimetres and millimetres?

What is its length in millimetres?



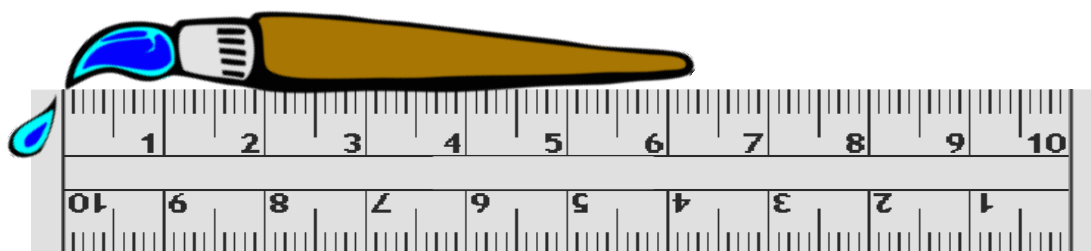
10mm 20mm 30mm 40mm 50mm 60mm 70mm 80mm 90mm

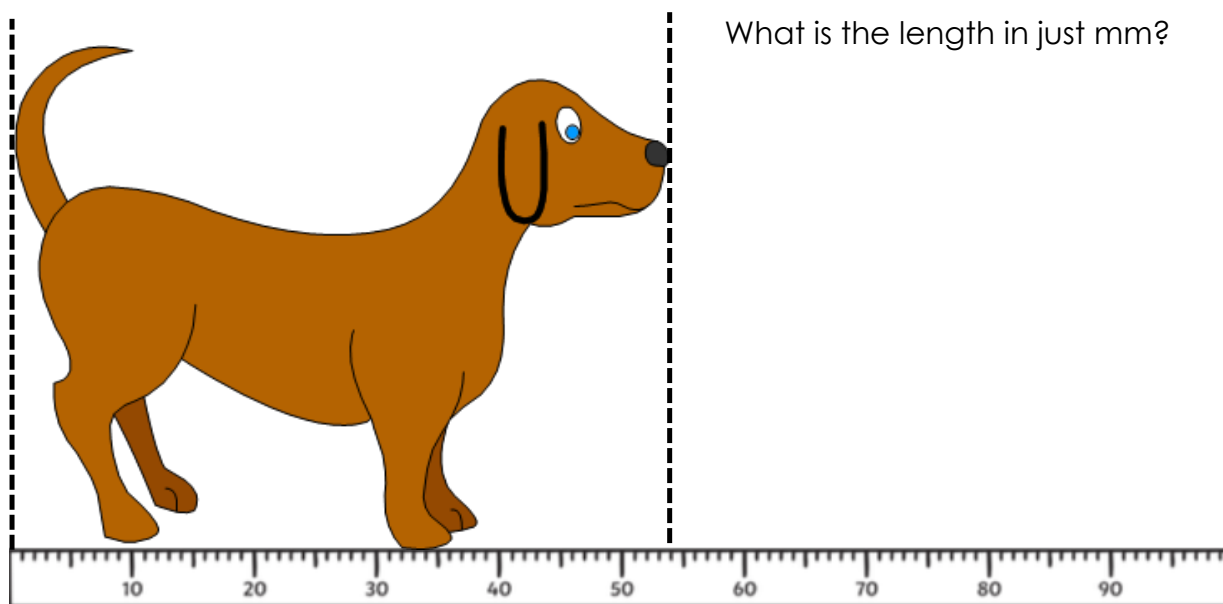
6cm and 2mm

62 mm

What is the length in cm and mm?

What is the length in just mm?





What is the length in cm and mm?

What is the length in just mm?

Measure 3 items around the classroom.

Record your measurements on your whiteboard.

- Can you fill in the last column? You will need to convert from cm to mm.

Equipment	cm and mm	mm

How many cms make 1m?



How do you know?

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

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

$$1\text{m} = \underline{\quad}\text{cm}$$

$$12\text{m} = \underline{\quad}\text{cm}$$

$$\underline{\quad}\text{m} = 120\text{cm}$$

$$2700\text{cm} = \underline{\quad}\text{m}$$

$$\underline{\quad}\text{cm} = 50\text{m}$$

$$168\text{cm} = \underline{\quad}\text{m}$$

To convert from metres to centimetres,
multiply by 100.

To convert from centimetres to metres,
divide by 100.

The mathstronaut has drawn a line. His friend measured the length of his line with a ruler.



Is the mathstronaut's friend correct? Explain your answer.

Your line is
6 cm 9 mm
long

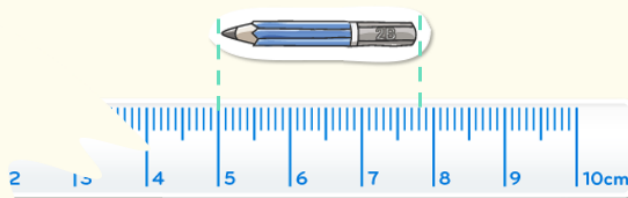


She is wrong. She has not measured the line from the start of the scale (where the 0 is). Instead she has lined up the end of the ruler with the line. However, there is a gap before the scale begins.

Amir wants to measure the length of his pencil but his ruler is broken.

Could he still use it?

How?



How long is his pencil?

He can still use the ruler as long as he counts from zero from wherever he begins to measure from. For example, he can line the end of the pencil up with 5cm. The pencil goes up to 7cm and 8mm.

The pencil is 2cm and 8mm long.

Three children are partitioning 754 cm

Teddy says,



75 m and 4 cm

Whitney says,



7 m and 54 cm

Jack says,



54 cm and 7 m

Who is correct?
Explain why.

Whitney and Jack are both correct. Teddy has incorrectly converted from cm to m when partitioning.

Mo and Alex each have a skipping rope.

Alex says,



I have the longest skipping rope. My skipping rope is $2\frac{1}{2}$ metres long.

Mo says,



My skipping rope is the longest because it is 220 cm and 220 is greater than $2\frac{1}{2}$

Who is correct?
Explain your answer.

Alex is correct because her skipping rope is 250 cm long which is 30 cm more than 220 cm.



The mathstronauts have been growing bean plants. They are comparing the height of their plants.

Who is correct? Why?

Explain your answer.



The first mathstronaut is correct. They cannot compare 125 and $1\frac{1}{2}$ because they are both different units of measurement. If we convert $1\frac{1}{2}$ metres into centimetres, we can put both measurements into the same unit. This makes them easier to compare. 125 cm is shorter than 150 cm

Attachments

MOfficePNG.png

MOfficePNG(27612).png