Converting Units of Length

I can convert between millimetres, centimetres and metres.

Millimetres and Centimetres

1. Here are some of the items that Lydia has in her pencil case. Some of the measurements are given in centimetres, some are in millimetres and some are in both. Order the items by length from shortest to longest:
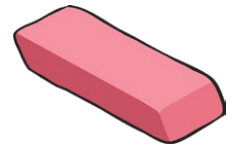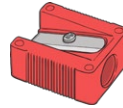
Order:

shortest:

longest:

ruler **19cm**

pen **10cm 8mm**

rubber **3cm 5mm**

sharpener **20mm**

pencil **170mm**

2. Convert these measurements into centimetres and millimetres by dividing by 10. Two examples are done for you.

Millimetres	Centimetres/Centimetres and Millimetres
40mm	
70mm	7cm
120mm	
35mm	
65mm	
135mm	
45mm	4cm 5mm
25mm	

Converting Units of Length

Centimetres and Metres

3. A group of children jumped in a long jump competition. Change the measurement of how far each child jumped into metres and centimetres. The first one is done for you:

Name	Centimetres	Metres and Centimetres
Leandra	230cm	
Petra	450cm	
Aliyah	265cm	
Tasweer	290cm	
Ben	490cm	
Carter	523cm	

Write the children's names in order of how far they jumped, from the furthest to the shortest.

1st) _____   2nd) _____   3rd) _____

4th) _____   5th) _____   6th) _____

4. Change these measurements from centimetres into metres.

300cm = _____m	900cm = _____m
700cm = _____m	850cm = _____m _____cm
430cm = _____m _____cm	655cm = _____m _____cm
680cm = _____m _____cm	460cm = _____m _____cm
435cm = _____m _____cm	325cm = _____m _____cm

Converting Units of Length **Answers**

1. **Order:**

shortest:

sharpener
rubber
pen
pencil
ruler

longest:

2.

Millimetres	Centimetres/Centimetres and Millimetres
40mm	*4cm*
70mm	*7cm*
120mm	*12cm*
35mm	*3cm 5mm*
65mm	*6cm 5mm*
135mm	*13cm 5mm*
45mm	*4cm 5mm*
25mm	*2cm 5mm*

3.

Name	Centimetres	Metres and Centimetres
Leandra	230cm	*2m 30cm*
Petra	450cm	*4m 50cm*
Aliyah	265cm	*2m 65cm*
Tasweer	290cm	*2m 90cm*
Ben	490cm	*4m 90cm*
Carter	523cm	*5m 23cm*

1st) *Carter*   2nd) *Ben*   3rd) *Petra*   4th) *Tasweer*   5th) *Aliyah*   6th) *Leandra*

4.

300cm = **3**m	900cm = **9**m
700cm = **7**m	850cm = **8**m **50**cm
430cm = **4**m **30**cm	655cm = **6**m **55**cm
680cm = **6**m **80**cm	460cm = **4**m **60**cm
435cm = **4**m **35**cm	325cm = **3**m **25**cm

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Maths I Year 4 I Measurement I Converting Units of Measurement I Lesson 1 of 5: Converting Units of Length

Converting Units of Length

I can convert between millimetres, centimetres and metres.

Millimetres and Centimetres

1. Class 4 found five pencils on the floor and measured them in either mm or cm and mm. Give the alternative measurement for each pencil.

| 9cm 2mm | | mm |

| cm   mm | | 115mm |

| 5cm 6mm | | mm |

| cm   mm | | 124mm |

| 13cm 5mm | | mm |

Here are the lengths of some small mammals.

Mouse: 125mm

Rat: 19cm 4mm

Rabbit: 65cm

Gerbil: 200mm

Guinea pig: 27cm 5mm

Hedgehog: 24cm

Converting Units of Length

2. Complete the following table about these small mammals:

Animal	Centimetres and Millimetres	Millimetres
mouse		
rat		
rabbit		
gerbil		
guinea pig		
hedgehog		

3. Use your table to order the mammals in size from shortest to longest.

shortest:

longest:

Centimetres and Metres

4. This table shows the height of some dinosaurs. Some measurements are written in centimetres and some in metres and centimetres. Complete the table.

Dinosaur	Centimetres	Metres and Centimetres
Diplodocus	730cm	
Spinosaurus		2m 45cm
Megalosaurus		3m 70cm
Apatosaurus	450cm	
Allosaurus	525cm	
Triceratops		2m 85cm

5. Order the dinosaurs from tallest to shortest.

tallest:

shortest:

Converting Units of Length **Answers**

1.

9cm 2mm		92mm
11cm 5mm		115mm
5cm 6mm		56mm
12cm 4mm		124mm
13cm 5mm		135mm

2.

Animal	Centimetres and Millimetres	Millimetres
mouse	12cm 5mm	125mm
rat	19cm 4mm	194mm
rabbit	65cm	650mm
gerbil	20cm	200mm
guinea pig	27cm 5mm	275mm
hedgehog	24cm	240mm

3. shortest:

mouse
rat
gerbil
hedgehog
guinea pig
rabbit

longest:

4.

Dinosaur	Centimetres	Metres and Centimetres
Diplodocus	730cm	*7m 30cm*
Spinosaurus	*245cm*	2m 45cm
Megalosaurus	*370cm*	3m 70cm
Apatosaurus	450cm	*4m 50cm*
Allosaurus	525cm	*5m 25cm*
Triceratops	*285cm*	2m 85cm

5. tallest:

Diplodocus
Allosaurus
Apatosaurus
Megalosaurus
Triceratops
Spinosaurus

shortest:

Converting Units of Length

I can convert between millimetres, centimetres and metres.

Millimetres and Centimetres

1. Here are the dimensions (width × length) of paper sizes, some in millimetres and some in centimetres and millimetres. Fill in the gaps on the tables.

Paper Size	Millimetres width × length	Centimetres and Millimetres width × length
A0	841 mm × 1189mm	
A1		59cm 4mm × 84cm 1mm
A2	420mm × 594mm	
A3		29cm 7mm × 42cm
A4		14cm 8mm × 29cm 7mm
A5	148mm × 210mm	
A6	105mm × 148mm	
A7		7cm 4mm × 10cm 5mm
A8		5cm 2mm × 7cm 4mm
A9	37mm × 52mm	
A10	26mm × 37mm	

2. Answer these questions, comparing either the length or width of paper sizes.

   a. How much longer is the length of a piece of A7 paper than A8? _____

   b. How much wider is the width of a piece of A3 paper than A5? _____

   c. How much shorter is the length of a piece of A10 paper than A0? _____

Converting Units of Length

Centimetres and Metres

3. This table shows the length of some of the largest sea creatures. Some measurements are written in centimetres and some in metres and centimetres. Complete the table.

Animal	Centimetres	Metres and Centimetres
blue whale		33m
basking shark	1227cm	
lion's mane jellyfish		36m 60cm
giant manta ray	700cm	
sperm whale	2400cm	
southern elephant seal		6m 85cm

4. Order the creatures from longest to shortest.

longest:

shortest:

Converting Units of Length **Answers**

1.

Paper Size	Millimetres width × length	Centimetres and Millimetres width × length
A0	841 mm × 1189mm	84cm 1mm × 118cm 9mm
A1	594mm × 841mm	59cm 4mm × 84cm 1mm
A2	420mm × 594mm	42cm × 59cm 4mm
A3	297mm × 420mm	29cm 7mm × 42cm
A4	210mm × 297mm	21cm × 29cm 7mm
A5	148mm × 210mm	14cm 8mm × 21cm
A6	105mm × 148mm	10cm 5mm × 14cm 8mm
A7	74mm × 105mm	7cm 4mm × 10cm 5mm
A8	52mm × 74mm	5cm 2mm × 7cm 4mm
A9	37mm × 52mm	3cm 7mm × 5cm 2mm
A10	26mm × 37mm	2cm 6mm × 3cm 7mm

2.
   a. How much longer is the length of a piece of A7 paper than A8? **31mm or 3cm 1mm**

   b. How much wider is the width of a piece of A3 paper than A5? **149mm or 14cm 9mm**

   c. How much shorter is the length of a piece of A10 paper than A0? **1152mm or 115cm 2mm**

3.

Animal	Centimetres	Metres and Centimetres
blue whale	3300cm	33m
basking shark	1227cm	12m 27cm
lion's mane jellyfish	3660cm	36m 60cm
giant manta ray	700cm	7m
sperm whale	2400cm	24m
southern elephant seal	685cm	6m 85cm

4. longest:

lion's mane jellyfish
blue whale
sperm whale
basking shark
giant manta ray
southern elephant seal

shortest: