













Measurement: Converting Millimetres, Centimetres, Metres

Aim: Convert between different units of measure [for example, kilometre to metre; hour to minute]. To convert between millimetres, centimetres and metres.	Success Criteria: I can convert from millimetres to centimetres by dividing by 10. I can convert from centimetres to millimetres by multiplying by 10. I can convert from centimetres to metres by dividing by 100. I can convert from metres to centimetres by multiplying by 100.	Resources: Lesson Pack Individual whiteboards and pens – class set
	Key/New Words: Measurement, length, millimetre, centimetre, metre, width.	Preparation: ×10 ÷10 ×100 ÷100 Loop Card Game – one class set Differentiated Converting Millimetres, Centimetres, Metres Activity Sheet – one per child

Prior Learning: It will be helpful if children have experienced using a variety of units of length to measure objects and distances.

Learning Sequence

	Remember It: Distribute the loop cards. Call 'Start' and children play the Loop Card Game . Start timing until the last person calls, 'Stop'. Redistribute the cards and repeat the game to try to beat the time.	
	Units of Length: Ask the children to write down all the units of metric measurement for length that they know. Use the Lesson Presentation to show the units of length used in the lesson, plus kilometres. Ask the children to order the units of measurement from smallest to largest.	
	Centimetres to Millimetres: Children convert from centimetres to millimetres by multiplying by 10, starting at 1cm and going up to 8cm. Can children convert from centimetres to millimetres by multiplying by 10?	
	Order the Objects: The Lesson Presentation shows a variety of objects, some of which show their measurements in centimetres and some in millimetres. Children order the objects from longest to shortest.	
	Converting Millimetres to Centimetres: Use the Lesson Presentation to demonstrate how to convert from millimetres to centimetres, by dividing by 10. Can children convert from millimetres to centimetres by dividing by 10?	
	Metres to Centimetres: Children convert metres to centimetres by multiplying by 100, starting at 1m and going up to 8m. Can children convert from metres to centimetres by multiplying by 100?	
	What's the Length? Children combine the lengths of three different animals. Where measurements are given in metres, children give measurements in centimetres.	
	Converting Centimetres to Metres: Use the Lesson Presentation to demonstrate how to convert from centimetres to metres by dividing by 100. Can children convert from centimetres to metres by dividing by 100?	

	<p>Converting Units of Length: Children complete the differentiated Converting Millimetres, Centimetres, Metres Activity Sheet. They convert from smaller units to larger units and vice versa.</p> <div style="display: flex; justify-content: space-between;"> <div data-bbox="244 192 596 465">  <p>Children complete conversion activities using millimetres to centimetres (below 20cm) and centimetres to metres (below 10m). In the activities, they convert either smaller to larger unit or larger unit to smaller.</p> </div> <div data-bbox="628 192 981 465">  <p>Children complete conversion activities: millimetres to centimetres (below 30cm) and centimetres to metres (below 10m). In the activities, they convert both smaller to larger units and larger units to smaller.</p> </div> <div data-bbox="1013 192 1366 495">  <p>Children complete conversion activities: millimetres to centimetres (below 120cm) and centimetres to metres (below 40m). In the activities, they convert both smaller to larger units and larger units to smaller.</p> </div> </div>	
	<p>Diving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.</p> <div style="margin-top: 10px;">  <p>Children practice their fluency skills of converting between millimetres and centimetres and between centimetres and metres.</p> </div> <div style="margin-top: 10px;">  <p>Children answer reasoning questions about converting between millimetres, centimetres and metres. They explain their reasoning.</p> </div> <div style="margin-top: 10px;">  <p>Children show their depth of understanding by answering more complex problems which have more than one possible answer.</p> </div>	
	<p>Conversion Problem: In pairs, children solve a length problem which involves converting from centimetres to millimetres and millimetres to centimetres.</p>	

Exploreit

Learnit: Children will enjoy using this [Knowledge Organiser](#) to support their understanding of measurement.

Strideit: From a starting point (an outside space would be best), children stride out ten strides. They measure the distance covered and record in metres and centimetres and in centimetres alone.



Maths

Measurement

Converting Millimetres, Centimetres, Metres

Aim

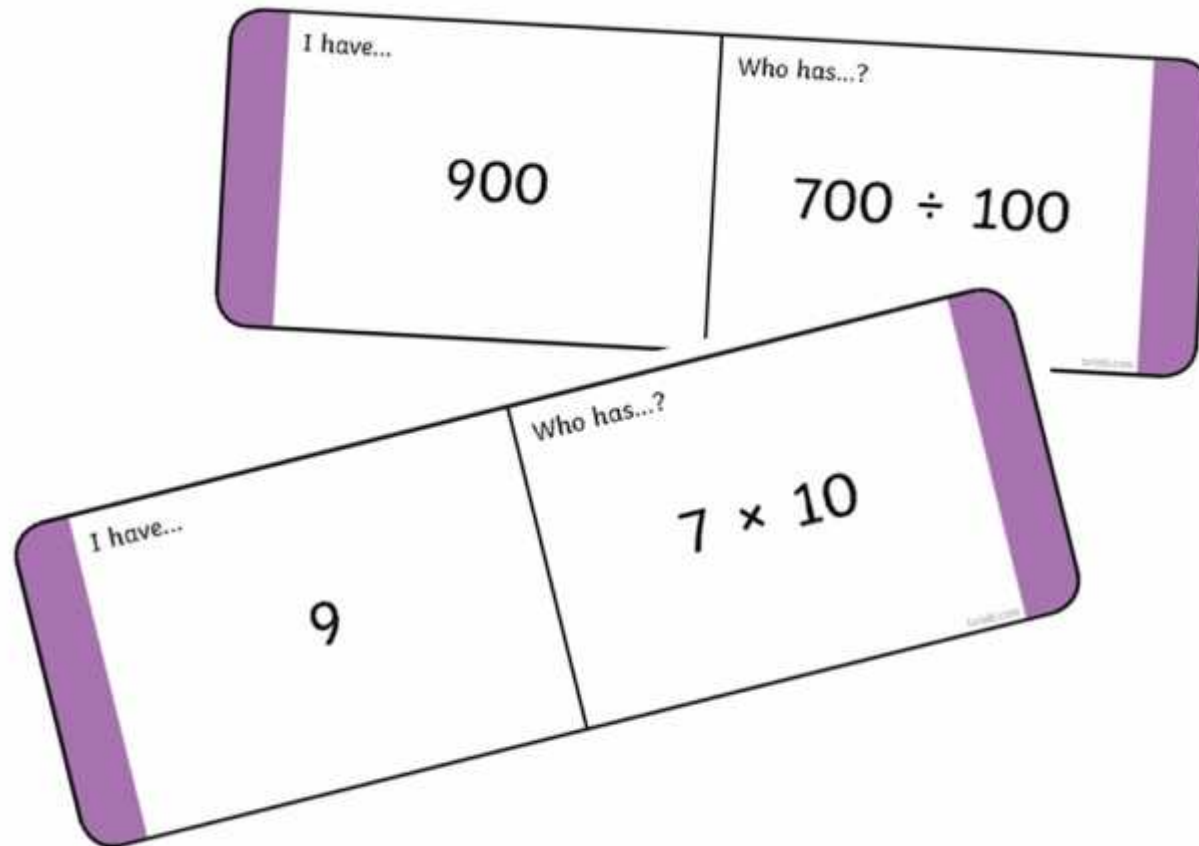
- To convert between millimetres, centimetres and metres.

Success Criteria

- I can convert from millimetres to centimetres by dividing by 10.
- I can convert from centimetres to millimetres by multiplying by 10.
- I can convert from centimetres to metres by dividing by 100.
- I can convert from metres to centimetres by multiplying by 100.

Remember It

As a class, play the Loop Card Game.
Redistribute the cards and play again to try to beat your time.



Units of Length

Write down as many **metric** units of length you can think of.

metre

centimetre

millimetre

kilometre

?

Did you get these?

Units of Length

Put these units of measurement in order from smallest to largest.

metre

centimetre

millimetre

kilometre

Centimetres to Millimetres

?

How many millimetres are there in 1cm?

10mm

Can you use this fact to work out how many millimetres there are in

2cm?

20mm

3cm?

30mm

4cm?

40mm

What do you notice about the answers?

Millimetres are smaller than centimetres. A centimetre is ten times larger than a millimetre.

?

What calculation do we need to do to convert from centimetres to millimetres?

We need to multiply the number of centimetres by 10.

Centimetres to Millimetres



Remember, to convert from centimetres to millimetres, we need to multiply the number of centimetres by 10.

How many millimetres are there in

5cm?

50mm

6cm?

60mm

7cm?

70mm

8cm?

80mm

Order the Objects

Some of these objects have been measured in centimetres and some in millimetres.



pencil
150mm



shoe
28cm



paper clip
30mm



£5 note
125mm



cricket bat
60cm

?

What do we need to do to help us order the objects from longest to shortest?

Order the Objects

First, change the measurements into the same unit.
We can convert the cm into mm by multiplying by 10.



pencil
150mm



shoe
28cm

280mm



paper clip
30mm



£5 note
125mm



cricket bat
60cm

600mm

Next, order them.

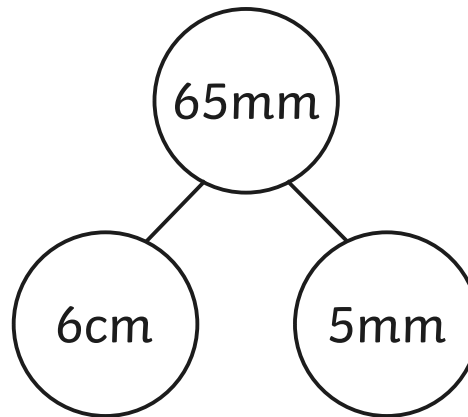
Converting Millimetres to Centimetres

To convert millimetres to centimetres, we use the inverse operation and **divide** the number of millimetres by 10:

What happens if the amount is not a multiple of 10?

$$65\text{mm} \div 10 = ?$$

This would be 6 whole centimetres and 5 millimetres = 6cm 5mm



Converting Millimetres to Centimetres

?

Convert these millimetre measurements into centimetres.

a) 50mm

5cm

b) 130mm

13cm

c) 85mm

8cm 5mm

d) 300mm

30cm

e) 42mm

4cm 2mm

f) 89mm

8cm 9mm

Metres to Centimetres

?

How many centimetres are there in 1m?

100cm

Can you use this fact to work out how many centimetres there are in

2m?

200cm

3m?

300cm

4m?

400cm

What do you notice about the answers?

Centimetres are smaller than metres. A metre is 100 times larger than a centimetre.

?

What calculation do we need to do to convert from metres to centimetres?

We need to multiply the number of metres by 100.

Metres to Centimetres

?

Remember, to convert from metres to centimetres, we need to multiply the number of metres by 100.

How many centimetres are there in

5m?

500cm

6m?

600cm

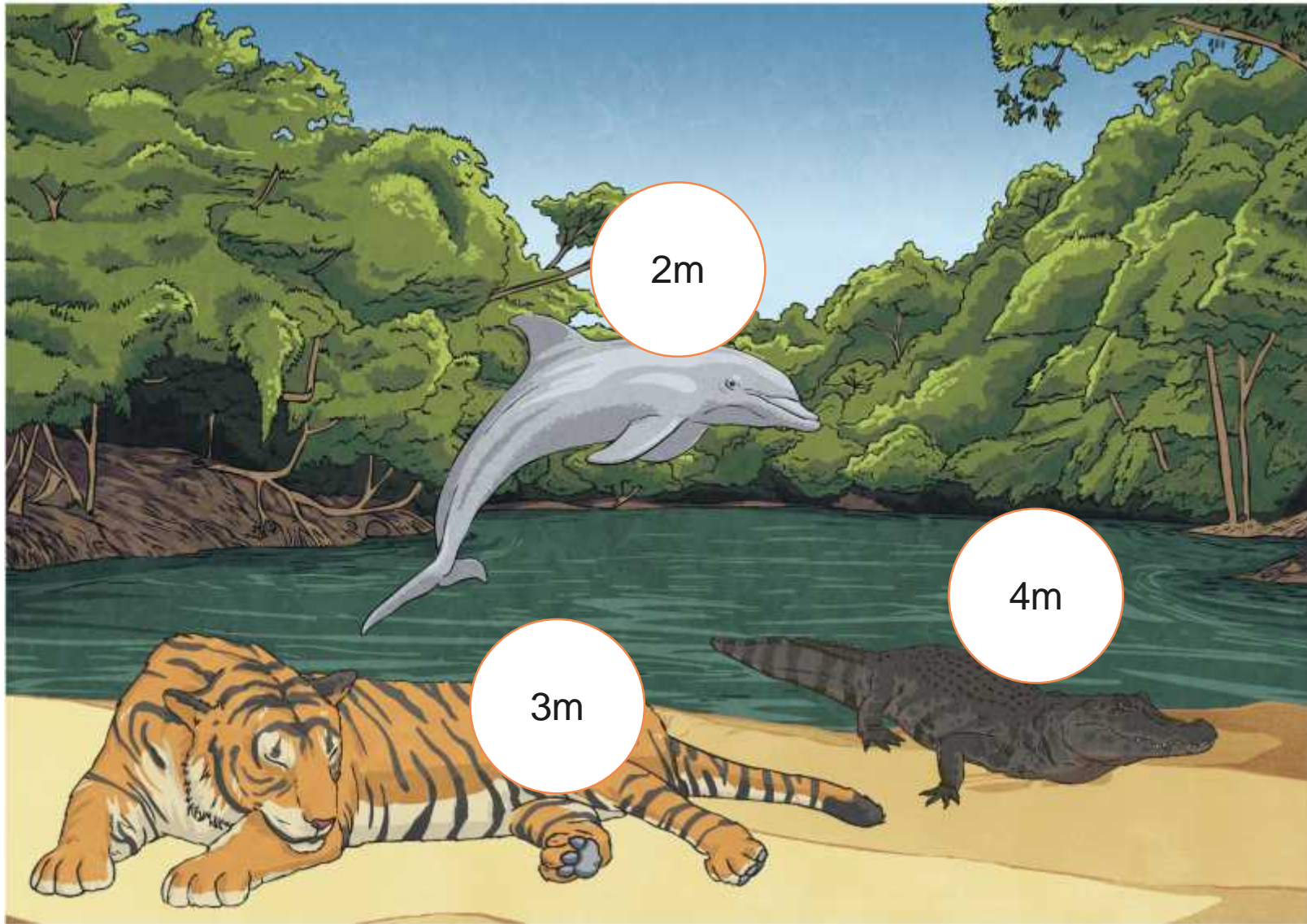
7m?

700cm

8m?

800cm

What's the Length?

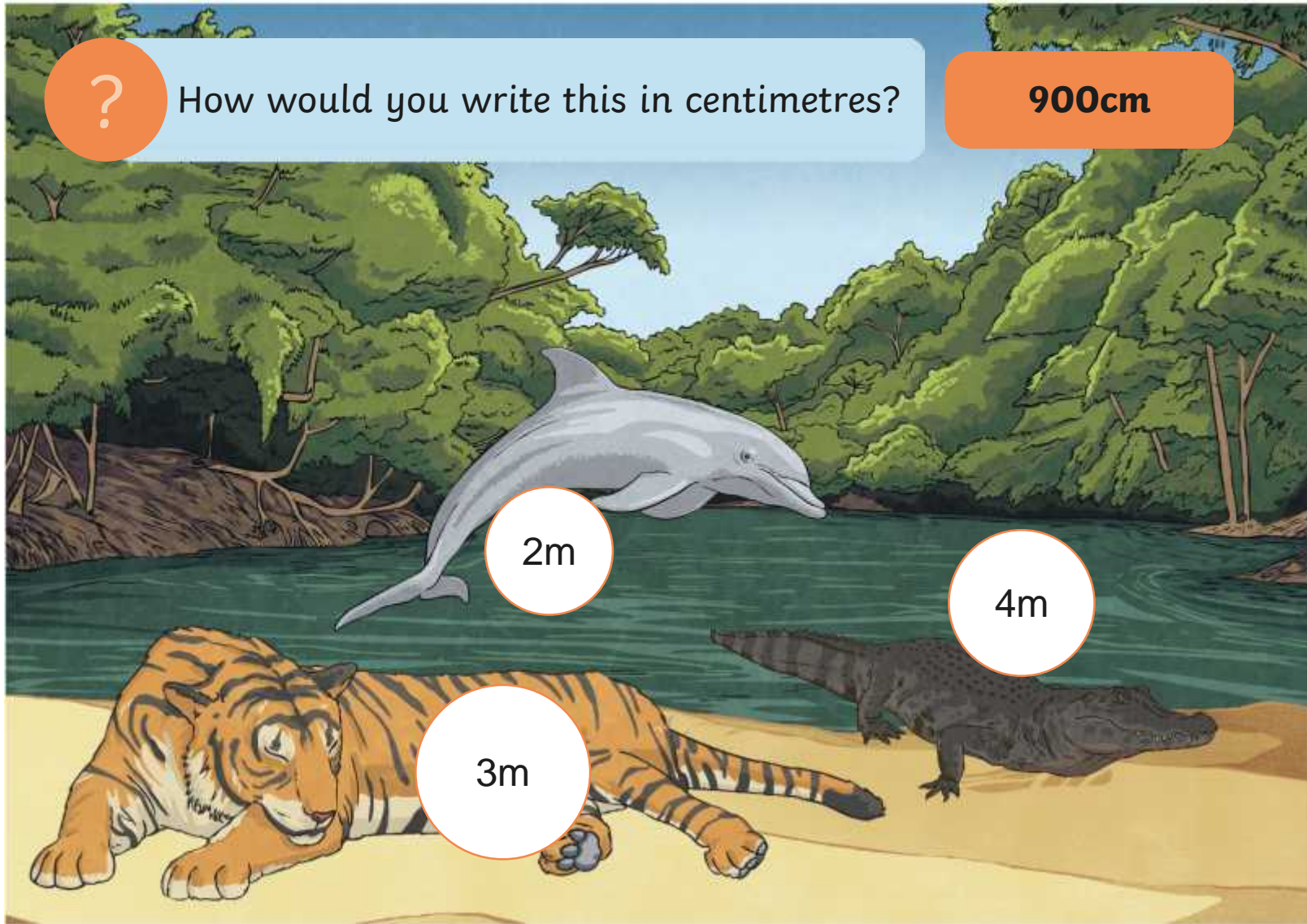


What's the Length?

?

How would you write this in centimetres?

900cm

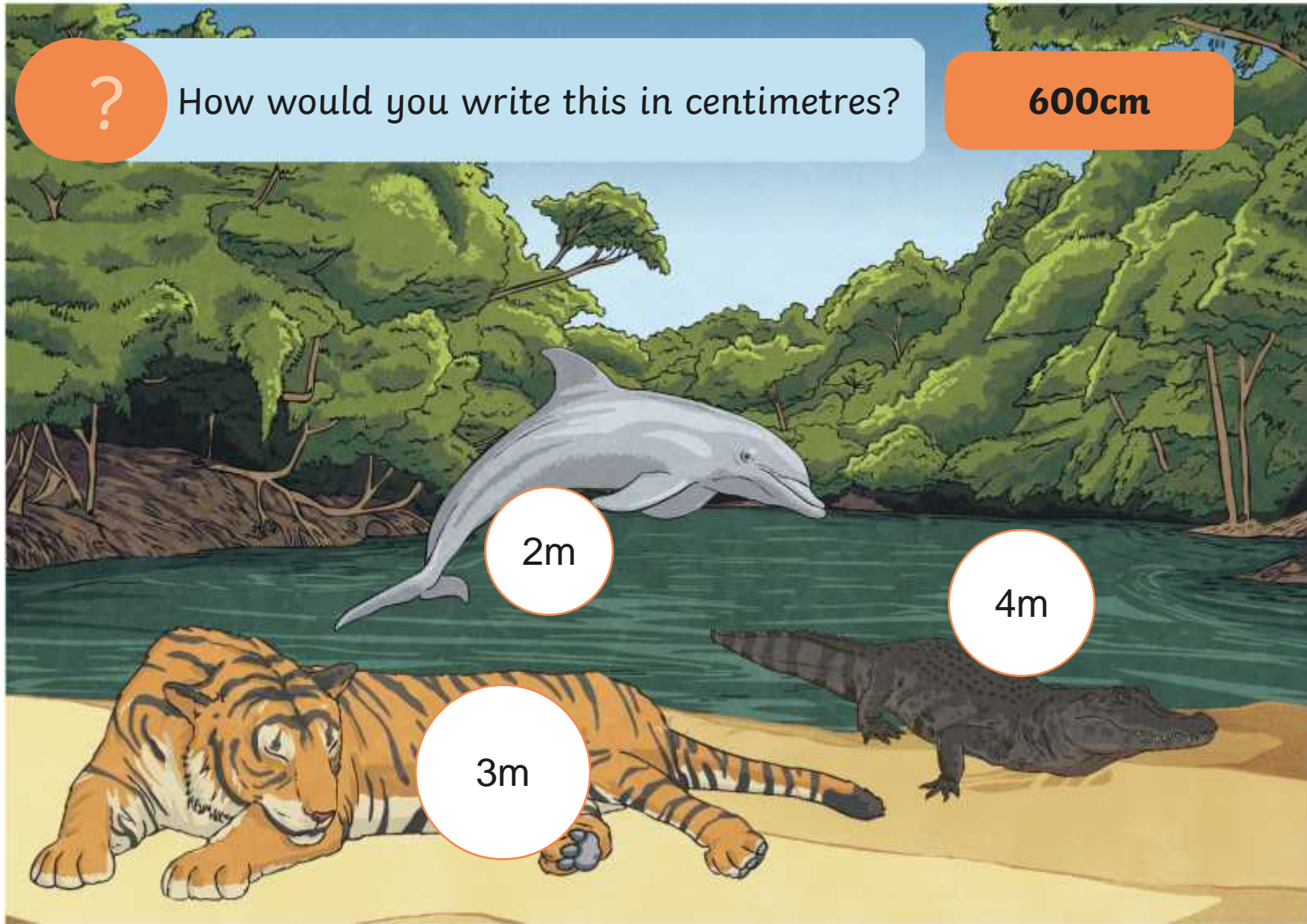


What's the Length?

?

How would you write this in centimetres?

600cm

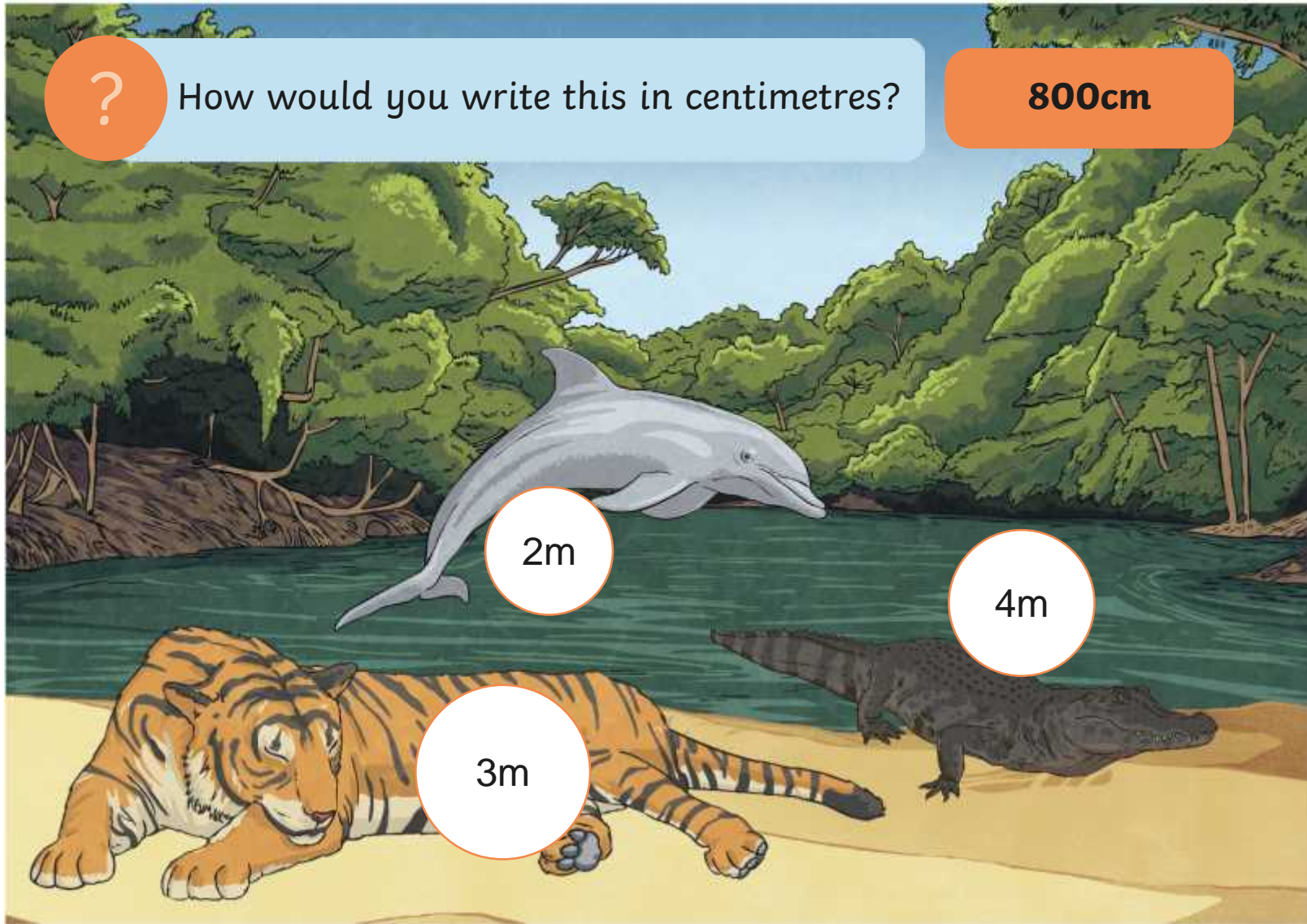


What's the Length?

?

How would you write this in centimetres?

800cm

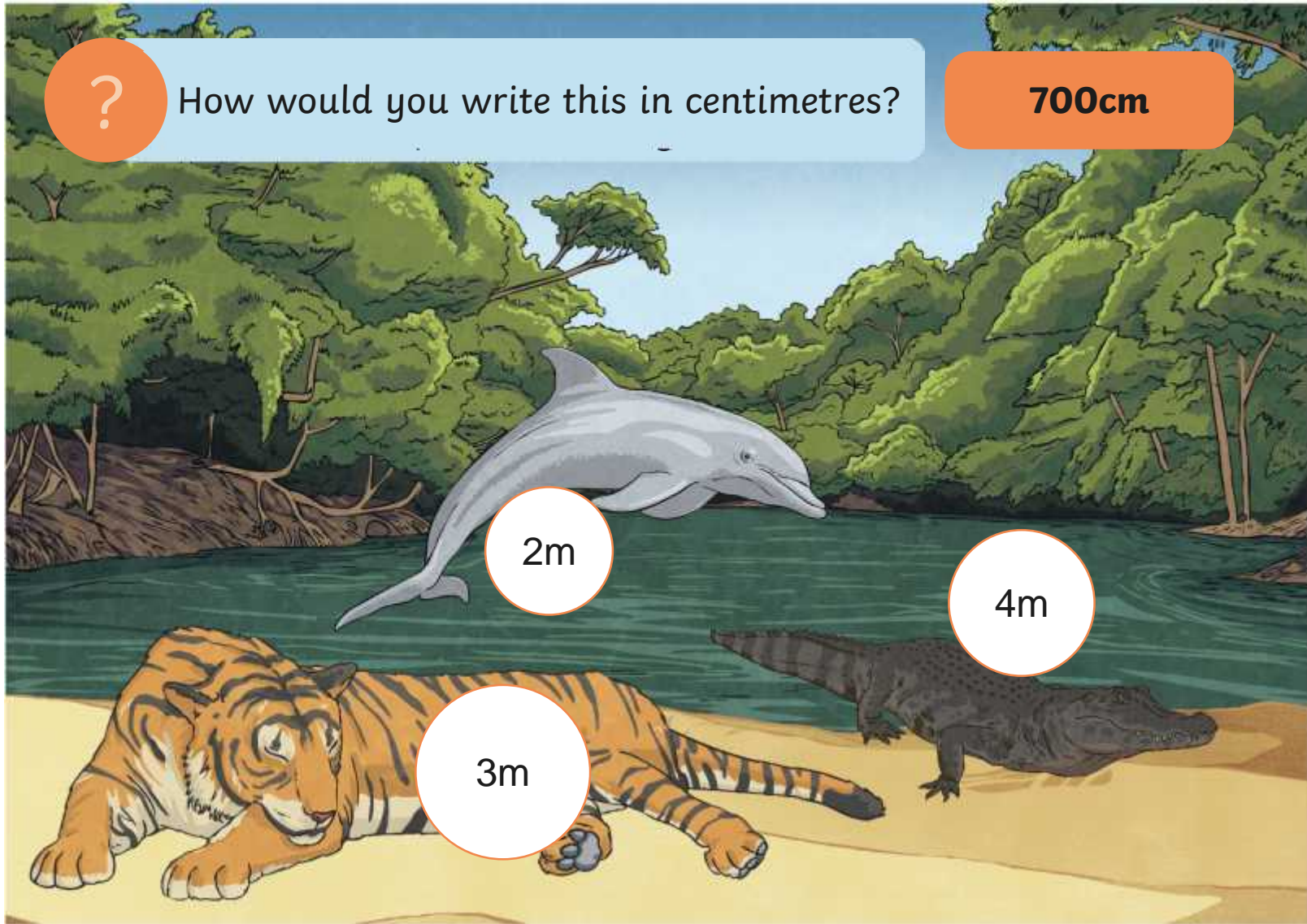


What's the Length?

?

How would you write this in centimetres?

700cm

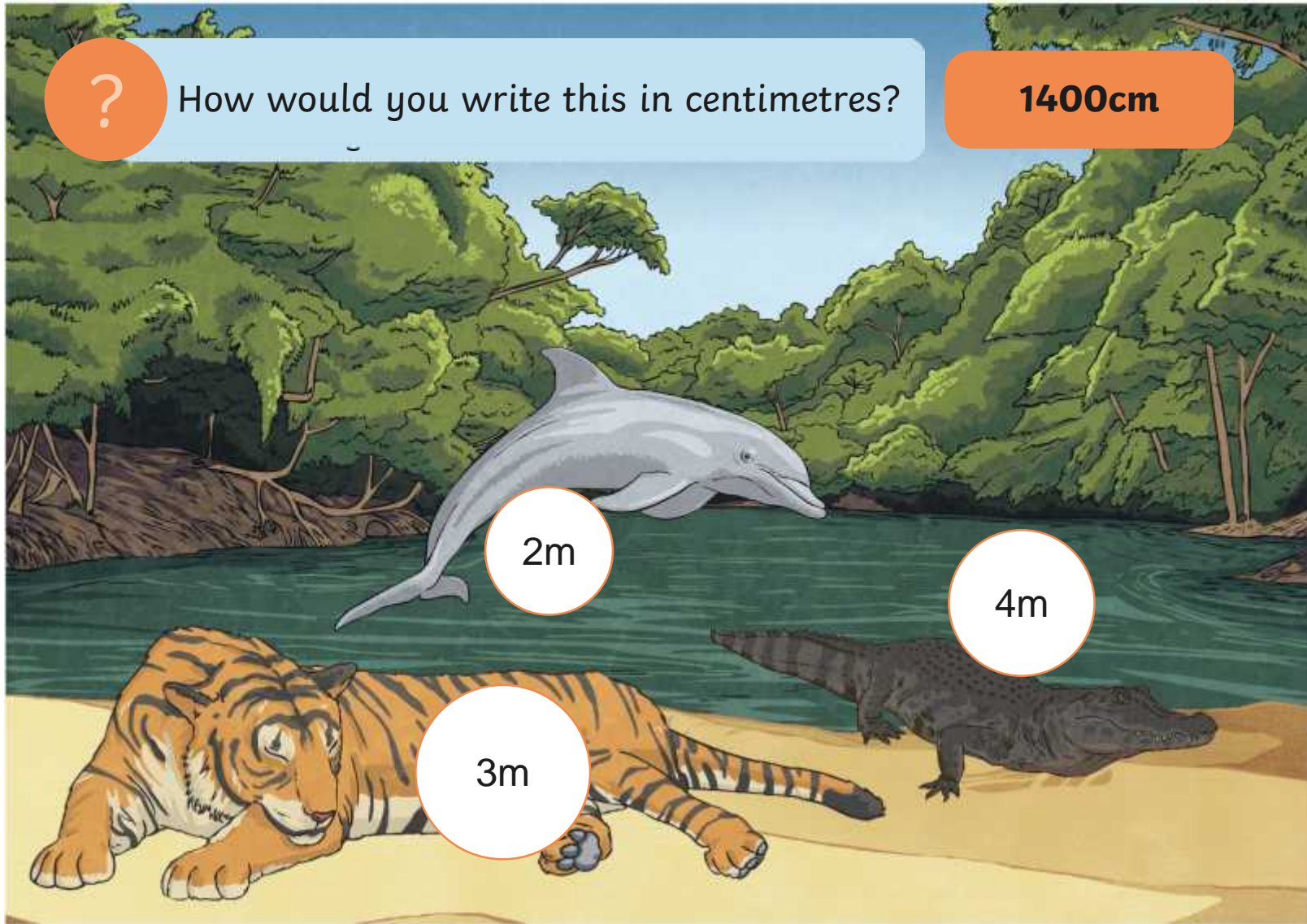


What's the Length?

?

How would you write this in centimetres?

1400cm



Converting Centimetres to Metres

To convert centimetres to metres, we use the inverse operation and **divide** the number of centimetres by 100:

$$500\text{cm} \div 100 = 5\text{m}$$

What happens if the amount is not a multiple of 100?

$$850\text{cm} \div 100 = ?$$

This would be 8 whole metres and 50 centimetres =

$$8\text{m } 50\text{cm}$$

Converting Centimetres to Metres

?

Convert these centimetre measurements into metres.

a) 800cm

8m

b) 580cm

5m 80cm

c) 145cm

1m 45cm

d) 400cm

4m

e) 230cm

2m 30cm

f) 305cm

3m 5cm

Converting Units of Length

Converting Millimetres, Centimetres, Metres

To convert between millimetres, centimetres and metres

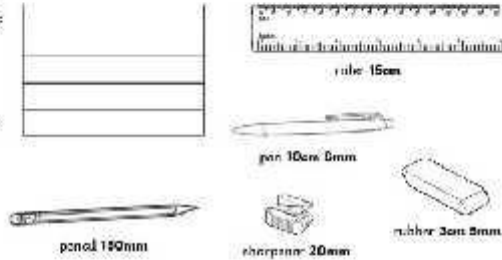
Millimetres and Centimetres

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 in both. Order the items by length from shortest to longest.

Order:

shortest

longest



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	
25mm	
60mm	
150mm	
45mm	4cm, 5mm

Converting Millimetres, Centimetres, Metres

3. Long jump competitions. Change the measurement of how far the boys jumped into metres and centimetres. The first one is done for you.

Centimetres	Metres and Centimetres
770cm	7m 70cm
450cm	
260cm	
790cm	
190cm	
525cm	

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

3rd

6th

5. Write the centimetres into metres.

1m	100cm = _____ m
2m	850cm = _____ m _____ cm
3m	640cm = _____ m _____ cm
4m	460cm = _____ m _____ cm
5m	325cm = _____ m _____ cm

Converting Centimetres, Metres

6. Write the metres into centimetres.

Metres
_____ m
_____ m
_____ m
_____ m
_____ m

7. Write the centimetres into metres.

_____ cm
_____ cm
_____ cm
_____ cm
_____ cm

8. Write the metres and centimetres into centimetres.

9. Write the centimetres into metres.

10. Write the metres into centimetres.

11. Write the centimetres into metres.

12. Write the metres into centimetres.

13. Write the centimetres into metres.

14. Write the metres into centimetres.

15. Write the centimetres into metres.

16. Write the metres into centimetres.

17. Write the centimetres into metres.

18. Write the metres into centimetres.

19. Write the centimetres into metres.

20. Write the metres into centimetres.

21. Write the centimetres into metres.

22. Write the metres into centimetres.

23. Write the centimetres into metres.

24. Write the metres into centimetres.

25. Write the centimetres into metres.

26. Write the metres into centimetres.

27. Write the centimetres into metres.

28. Write the metres into centimetres.

29. Write the centimetres into metres.

30. Write the metres into centimetres.

Converting Centimetres, Metres

31. Write the metres into centimetres.

Metres
_____ m
_____ m
_____ m
_____ m
_____ m

32. Write the centimetres into metres.

_____ cm
_____ cm
_____ cm
_____ cm
_____ cm

33. Write the metres and centimetres into centimetres.

_____ m _____ cm
_____ m _____ cm
_____ m _____ cm
_____ m _____ cm
_____ m _____ cm

34. Write the centimetres into metres.

_____ cm
_____ cm
_____ cm
_____ cm
_____ cm

35. Write the metres into centimetres.

_____ m
_____ m
_____ m
_____ m
_____ m

36. Write the centimetres into metres.

_____ cm
_____ cm
_____ cm
_____ cm
_____ cm

37. Write the metres into centimetres.

_____ m
_____ m
_____ m
_____ m
_____ m

38. Write the centimetres into metres.

_____ cm

Conversion Problem



The combined height of Lewis and his cousin Sukhdeep is 278cm.

Lewis measures 1m 35cm.

Write Sukhdeep's height in both m and cm and in cm alone.

1m 43cm or 143cm

Aim



- To convert between millimetres, centimetres and metres.

Success Criteria

- I can convert from millimetres to centimetres by dividing by 10.
- I can convert from centimetres to millimetres by multiplying by 10.
- I can convert from centimetres to metres by dividing by 100.
- I can convert from metres to centimetres by multiplying by 100.



Aim: To convert between millimetres, centimetres and metres.				Date:					
				Delivered By:			Support:		
Success Criteria	Me	Friend	Teacher	T	PPA	S	I	AL	GP
I can convert from millimetres to centimetres by dividing by 10.				Notes/Evidence					
I can convert from centimetres to millimetres by multiplying by 10.									
I can convert from centimetres to metres by dividing by 100.									
I can convert from metres to centimetres by multiplying by 100.									
Next Steps									
) _____									
) _____									

T	Teacher	I	Independent
PPA	Planning, Preparation and Assessment	AL	Adult Led
S	Supply	GP	Guided Practice

Aim: To convert between millimetres, centimetres and metres.				Date:					
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Next Steps									
) _____									
) _____									

T	Teacher	I	Independent
PPA	Planning, Preparation and Assessment	AL	Adult Led
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Converting Millimetres, Centimetres, Metres

To convert between millimetres, centimetres and metres.



Millimetres and Centimetres

- 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:

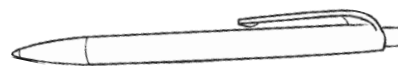
Order:

shortest:

longest:



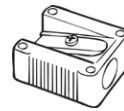
ruler **15cm**



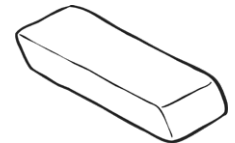
pen **10cm 8mm**



pencil **140mm**



sharpener **20mm**



rubber **3cm 5mm**

- 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	

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	2m 30cm
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 Millimetres, Centimetres, Metres

To convert between millimetres, centimetres and metres.



Millimetres and Centimetres

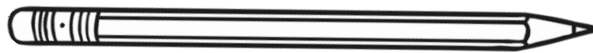
- Class 4 found five pencils on the floor and measured them in either mm or cm and mm. Give the alternative measurement for each pencil.

9cm 2mm



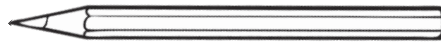
mm

cm mm



115mm

5cm 6mm



mm

cm mm



124mm

13cm 5mm



mm

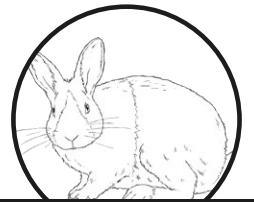
Here are the lengths of some small mammals.



Mouse: 125mm



Rat: 19cm 4mm



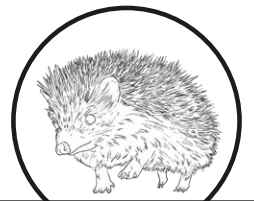
Rabbit: 65cm



Gerbil: 200mm



Guinea pig: 27cm 5mm



Hedgehog: 24cm

2. Complete the following table showing the lengths of 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 Millimetres, Centimetres, Metres

To 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		21cm × 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.
- How much longer is the length of a piece of A7 paper than A8? _____
 - How much wider is the width of a piece of A3 paper than A5? _____
 - How much shorter is the length of a piece of A10 paper than A0? _____

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 Millimetres, Centimetres, Metres **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



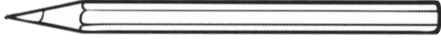


1st) Carter 2nd) Ben 3rd) Petra 4th) Tasweer 5th) Aliyah 6th) Leandra

4.

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

Converting Millimetres, Centimetres, Metres **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:

Converting Millimetres, Centimetres, Metres **Answers**

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

shortest:

Spinosaurus

Converting Millimetres, Centimetres, Metres **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

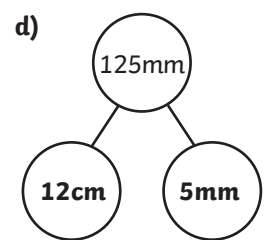
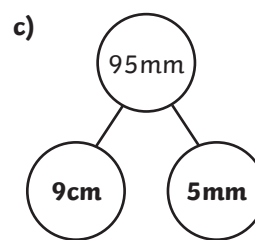
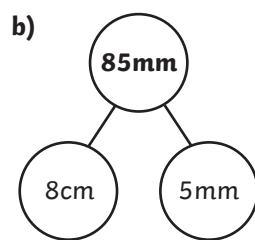
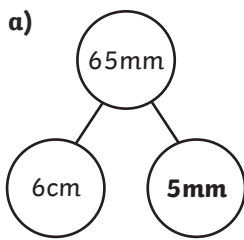
shortest:

southern elephant seal



1) Multiple answers possible.

2)



3)

cm	m and cm
550cm	5m 50cm
750cm	7m 50cm
650cm	6m 50cm
975cm	9m 75cm
850cm	8m 50cm

1) Cara is correct.



- Plant A cost £3
- Plant B cost £3
- Plant C cost £5
- Plant D cost £3
- Plant E cost £5

$$£3 + £3 + £5 + £3 + £3 + £5 = £19$$

2)

- a)
- Lewis 455cm
 - Kylie 605cm ✓
 - Pat 525cm ✓
 - Leon 655cm
 - David 599cm ✓
 - Mo 322cm

b) Pat, Prem, David, Kylie



1)



9cm 5mm



60mm



7cm



6cm 8mm



$$50\text{mm} + 100\text{mm} + 72\text{mm} = 222\text{mm}$$

The total height of the tower is less than 30cm, which is 300mm.

$$300\text{mm} - 222\text{mm} = 78\text{mm}$$

The final block must be less than 78mm.

2) 3 measurements from:

545cm or 5m 45cm

590cm or 5m 90cm

635cm or 6m 35cm

680cm or 6m 80cm

725cm or 7m 25cm

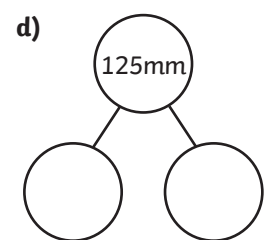
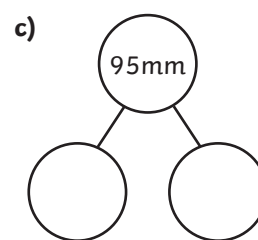
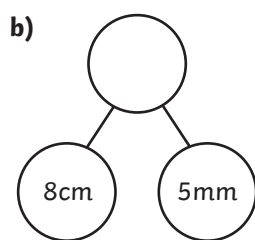
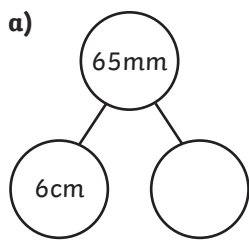
770cm or 7m 70cm



1) Find 4 different objects to measure. Record the measurements in millimetres and then in centimetres and millimetres.

Object	mm	cm and mm

2) Complete the part-whole models.



3) Convert from centimetres to metres and centimetres or metres and centimetres to metres.

cm	m and cm
550cm	
750cm	
	6m 50cm
	9m 75cm
850cm	



1) At the garden centre, plants are priced by how tall they are.



Up to 95mm - £3



Over 95mm - £5

Here are the measurements of 6 plants:

Plant A – 7cm 5mm

Plant B – 8cm 7mm

Plant C – 10cm

Plant D – 9cm 4cm

Plant E – 11cm 8mm



I have £20. I have enough money to buy all the plants.

Cara

Is Cara correct? Show how you know.

2) To qualify for the long jump competition, athletes had to jump further than 5m and less than 6m 25cm.

a) Tick the athletes who qualified.

Lewis 455cm

Kylie 605cm

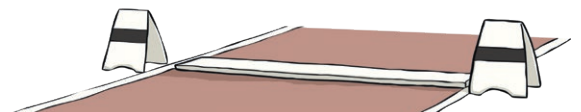
Pat 525cm

Leon 655cm

David 599cm

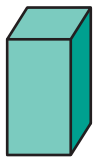
Mo 322cm

b) Prem was the fourth athlete. He jumped 5m 65cm.
Order the athletes who qualified from shortest to longest jump.

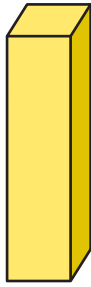




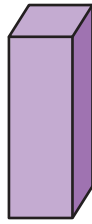
1) I am building a tower which is less than 30cm tall. Here are 3 of the blocks in my tower:



50mm

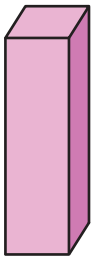


100mm

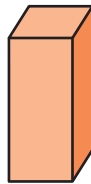


72mm

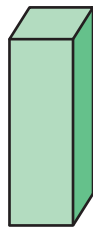
Which of these cubes could the fourth block be? Place a tick by all the possible blocks.



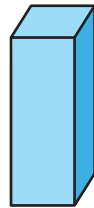
9cm 5mm



60mm



7cm



6cm 8mm

Explain how you know.

2) Fabien is thinking of a measurement. Here are some clues he gives.

Write 3 possible measurements Fabien's measurement could be. Write each measurement in centimetres and in metres and centimetres.



- If my measurement is written in centimetres, it is a multiple of 5.
- The measurement is greater than 5m but less than 8m.
- The sum of the digits is 14.

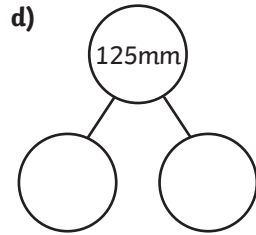
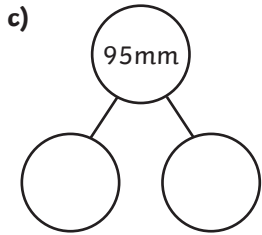
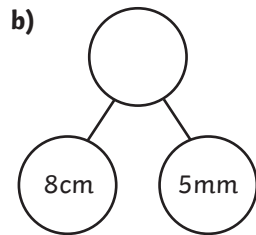
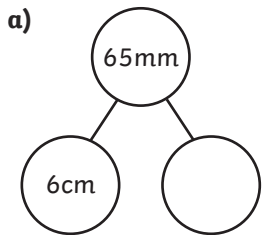
Fabien

- 1) Find 4 different objects to measure.
Record the measurements in millimetres
and then in centimetres and millimetres.



Object	mm	cm and mm

- 2) Complete the part-whole models.



- 3) Convert from centimetres to metres and centimetres
or metres and centimetres to metres.

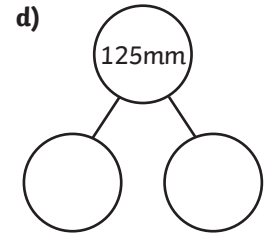
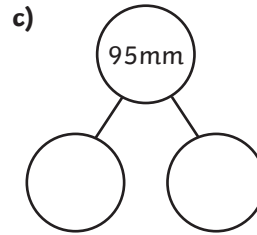
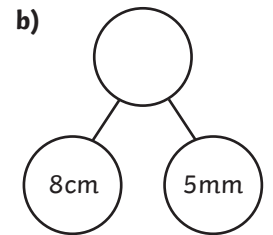
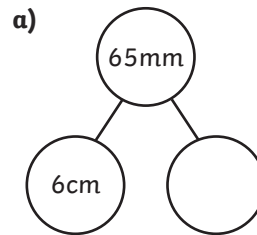
cm	m and cm
550cm	
750cm	
	6m 50cm
	9m 75cm
850cm	

- 1) Find 4 different objects to measure.
Record the measurements in millimetres
and then in centimetres and millimetres.



Object	mm	cm and mm

- 2) Complete the part-whole models.



- 3) Convert from centimetres to metres and centimetres
or metres and centimetres to metres.

cm	m and cm
550cm	
750cm	
	6m 50cm
	9m 75cm
850cm	

- 1) At the garden centre, plants are priced by how tall they are.



Up to 95mm - £3



Over 95mm - £5

Here are the measurements of 6 plants:

- Plant A – 7cm 5mm
- Plant B – 8cm 7mm
- Plant C – 10cm
- Plant D – 9cm 4cm
- Plant E – 11cm 8mm



I have £20. I have enough money to buy all the plants.

Cara

Is Cara correct? Show how you know.

- 2) To qualify for the long jump competition, athletes had to jump further than 5m and less than 6m 25cm.

- a) Tick the athletes who qualified.

- Lewis 455cm
- Kylie 605cm
- Pat 525cm
- Leon 655cm
- David 599cm
- Mo 322cm

- b) Prem was the fourth athlete. He jumped 5m 65cm. Order the athletes who qualified from shortest to longest jump.



- 1) At the garden centre, plants are priced by how tall they are.



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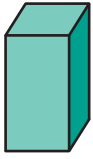
- a) Tick the athletes who qualified.

- Lewis 455cm
- Kylie 605cm
- Pat 525cm
- Leon 655cm
- David 599cm
- Mo 322cm

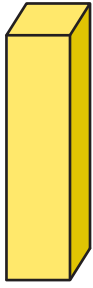
- b) Prem was the fourth athlete. He jumped 5m 65cm. Order the athletes who qualified from shortest to longest jump.



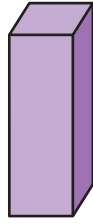
1) I am building a tower which is less than 30cm tall. Here are 3 of the blocks in my tower:



50mm

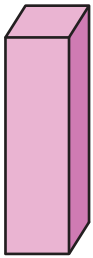


100mm

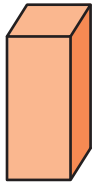


72mm

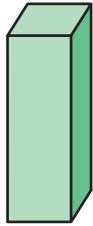
Which of these cubes could the fourth block be?
Place a tick by all the possible blocks.



9cm 5mm



60mm



7cm



6cm 8mm

Explain how you know.

2) Fabien is thinking of a measurement.
Here are some clues he gives.



- If my measurement is written in centimetres, it is a multiple of 5.
- The measurement is greater than 5m but less than 8m.
- The sum of the digits is 14.

Fabien

Write 3 possible measurements Fabien's measurement could be. Write each measurement in centimetres and in metres and centimetres.

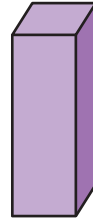
1) I am building a tower which is less than 30cm tall. Here are 3 of the blocks in my tower:



50mm



100mm

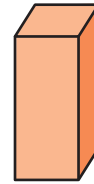


72mm

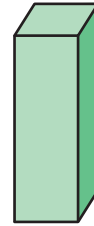
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- If my measurement is written in centimetres, it is a multiple of 5.
- The measurement is greater than 5m but less than 8m.
- The sum of the digits is 14.

Fabien

Write 3 possible measurements Fabien's measurement could be. Write each measurement in centimetres and in metres and centimetres.

I have...

8

Who has...?

3×10

I have...

85

Who has...?

9×100

I have...

20

Who has...?

13×10

I have...

80

Who has...?

$90 \div 10$

I have...

30

Who has...?

5×100

I have...

9

Who has...?

7×10

I have...

900

Who has...?

$700 \div 100$

I have...

130

Who has...?

$400 \div 10$

I have...

2

Who has...?

$$300 \div 100$$

I have...

90

Who has...?

$$6 \times 10$$

I have...

400

Who has...?

$$100 \div 10$$

I have...

500

Who has...?

$$20 \div 10$$

I have...

7

Who has...?

8×10

I have...

10

Who has...?

$1100 \div 100$

I have...

40

Who has...?

21×10

I have...

3

Who has...?

11×10

I have...

110

Who has...?

$850 \div 10$

I have...

11

Who has...?

25×10

I have...

5

Who has...?

19×10

I have...

70

Who has...?

12×10

I have...

170

Who has...?

4×100

I have...

250

Who has...?

$200 \div 10$

I have...

190

Who has...?

$80 \div 10$

I have...

120

Who has...?

$600 \div 100$

I have...

60

Who has...?

$400 \div 100$

I have...

210

Who has...?

$500 \div 100$

I have...

6

Who has...?

$120 \div 10$

I have...

12

Who has...?

9×10

I have...

4

Who has...?

17×10

Loop Cards Answers

This is the order of the cards:

Start	Who has 3×10 ?
I have 30	Who has 5×100 ?
I have 500	Who has $20 \div 10$?
I have 2	Who has $300 \div 100$?
I have 3	Who has 11×10 ?
I have 110	Who has $850 \div 10$?
I have 85	Who has 9×100 ?
I have 900	Who has $700 \div 100$?
I have 7	Who has 8×10 ?
I have 80	Who has $90 \div 10$?
I have 9	Who has 7×10 ?
I have 70	Who has 12×10 ?
I have 120	Who has $600 \div 100$?
I have 6	Who has $120 \div 10$?
I have 12	Who has 9×10 ?
I have 90	Who has 6×10 ?
I have 60	Who has $400 \div 100$?
I have 4	Who has 17×10 ?
I have 170	Who has 4×100 ?
I have 400	Who has $100 \div 10$?
I have 10	Who has $1100 \div 100$?
I have 11	Who has 25×10 ?
I have 250	Who has $200 \div 10$?
I have 20	Who has 13×10 ?
I have 130	Who has $400 \div 10$?
I have 40	Who has 21×10 ?
I have 210	Who has $500 \div 100$?
I have 5	Who has 19×10 ?
I have 190	Who has $80 \div 10$?
I have 8	Stop

Measurement | Converting Millimetres, Centimetres, Metres

To convert between millimetres, centimetres and metres.		
I can convert from millimetres to centimetres by dividing by 10.		
I can convert from centimetres to millimetres by multiplying by 10.		
I can convert from centimetres to metres by dividing by 100.		
I can convert from metres to centimetres by multiplying by 100.		

Measurement | Converting Millimetres, Centimetres, Metres

To convert between millimetres, centimetres and metres.		
I can convert from millimetres to centimetres by dividing by 10.		
I can convert from centimetres to millimetres by multiplying by 10.		
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I can convert from metres to centimetres by multiplying by 100.		

Measurement | Converting Millimetres, Centimetres, Metres

To convert between millimetres, centimetres and metres.		
I can convert from millimetres to centimetres by dividing by 10.		
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I can convert from centimetres to metres by dividing by 100.		
I can convert from metres to centimetres by multiplying by 100.		

Measurement | Converting Millimetres, Centimetres, Metres

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Measurement | Converting Millimetres, Centimetres, Metres

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