Length and Height

27.04.20

Date: 27.04.20

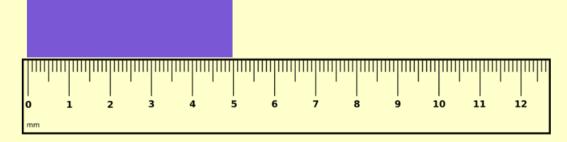
LO: To be able to measure length using cm

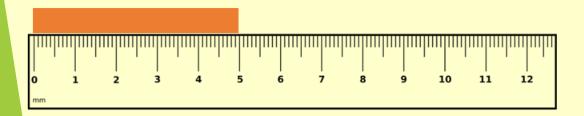
Success Criteria

- ✓ I can use my knowledge of measuring with nonstandard units of measurement to measure using cm
- ✓ I can explain my reasoning when using my knowledge of measuring with non-standard units of measurement to measure using cm

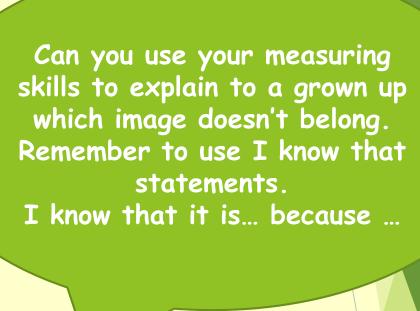
Starter

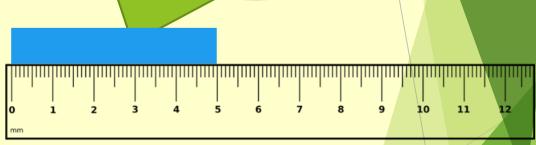
Which one doesn't belong?

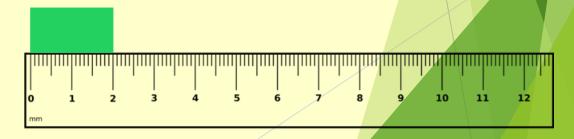




Explain your answer.

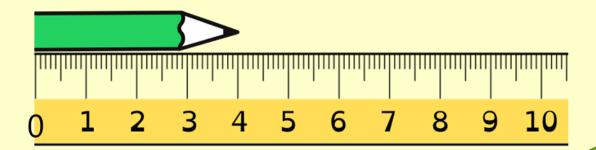






Talking Time:

How long is the pencil?

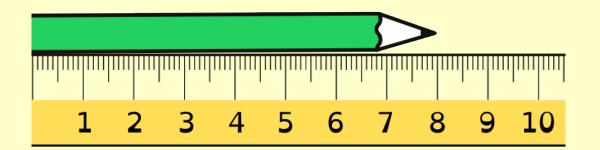


The pencil is __ cm long.

How would you describe the length of the pencil?

Talking Time:

How long is the pencil?

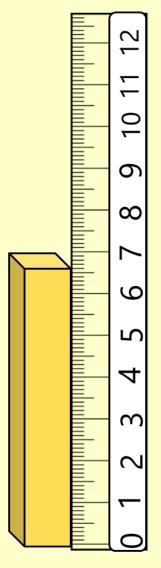


How would you describe the length of the pencil?

The pencil is __ cm long.

Talking Time:

How tall is the cuboid in cm?



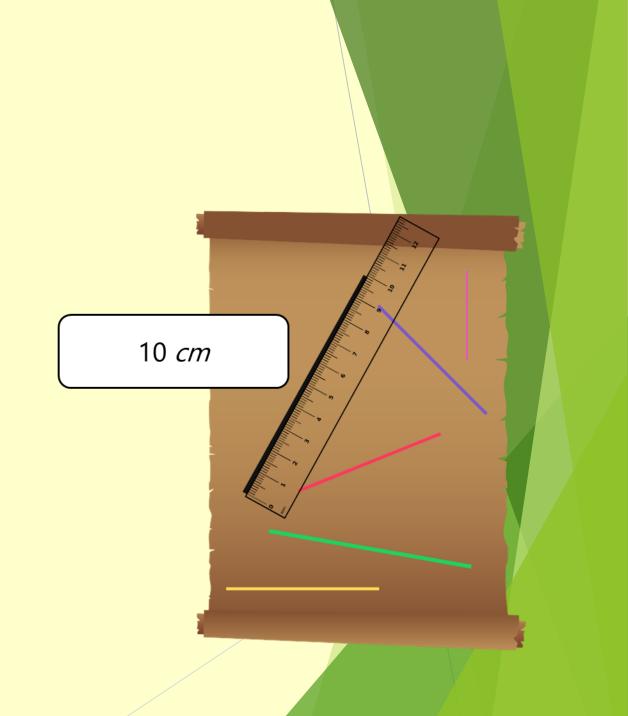
How would you describe the height of the cuboid?

The cuboid is __ cm tall.

Descriptive doing

Draw straight lines of various lengths and orientations on to paper.

Children to measure each line to the nearest cm.

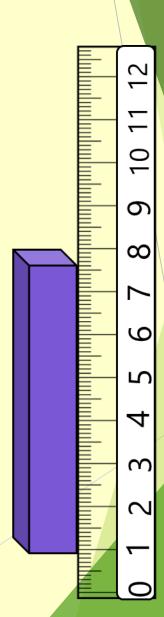


Reflective teaching

James says, "The cuboid is 8 cm tall."

Do you agree?

Explain your answer.



Reflective doing

Discuss with an adult if it is possible to measure the string. Can you do it without moving it?

Is it possible to measure the piece of string shown below?

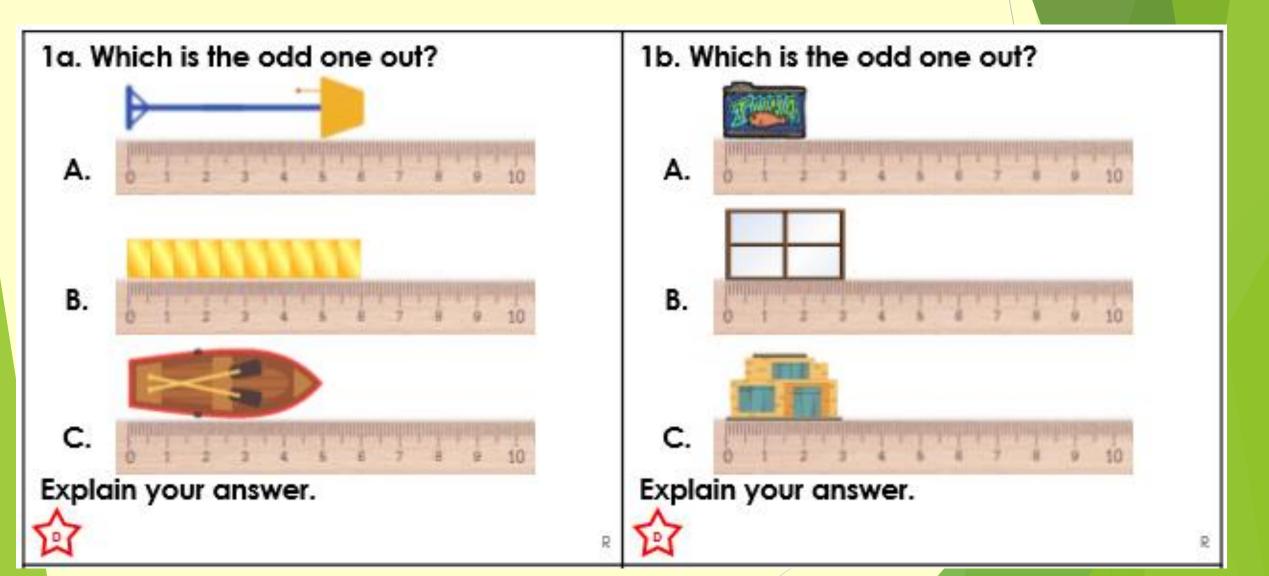


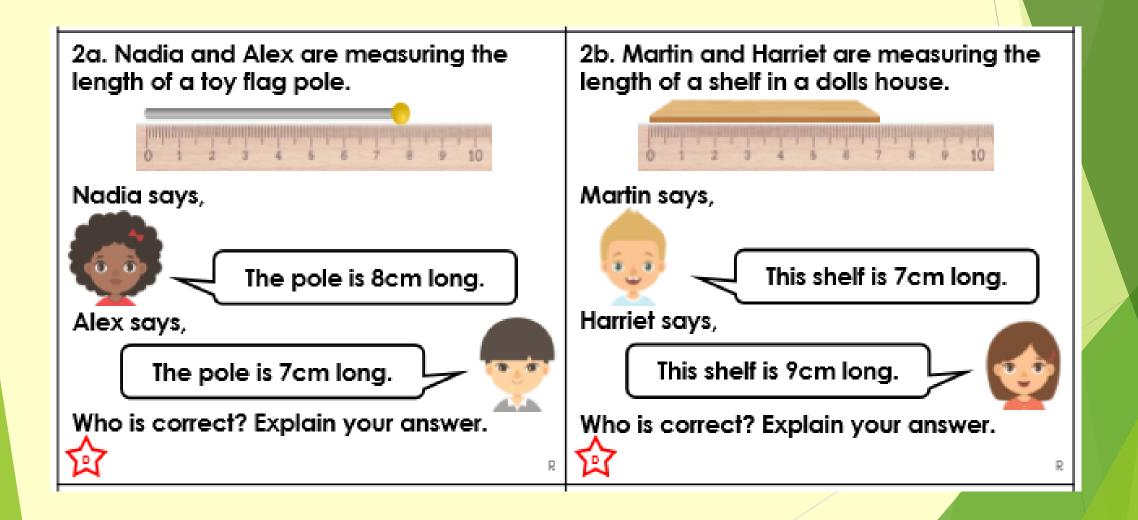
If so, how would you go about measuring the piece of string? Explain your answer.

The following slides are questions for you to work through independently. These are reasoning and problem solving question so if it says **EXPLAIN** you need to write how you know the answer.

There are 3 sets of work - Green (the easiest), Orange and Red(the hardest). Choose one set you feel most comfortable with.

You could challenge yourself by completing more than one challenge!





3a. David's toy bus measures between 4cm and 9cm.

Find two possible measurements for his toy bus.



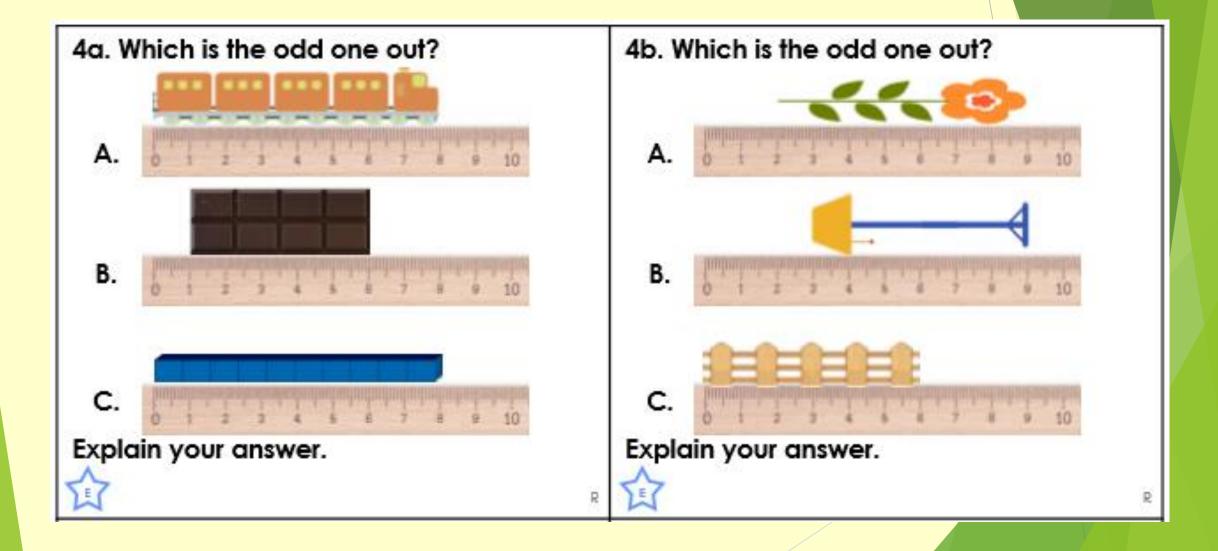
3b. Josie's doll measures between 6cm and 10cm.

Find two possible measurements for her doll.









5a. Zoe and Mike are measuring the length of a pencil.



Zoe says,



This pencil is 8cm long.

Mike says,

This pencil is 6cm long.



Who is correct? Explain your answer.

5b. Niall and Sarah are measuring the length of a shape.

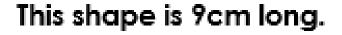


Niall says,



The shape is 7cm long.

Sarah says,





Who is correct? Explain your answer.



6a. Abdul's toy bottle measures between 10cm and 15cm.

What are the possible measurements his bottle of drink could be?



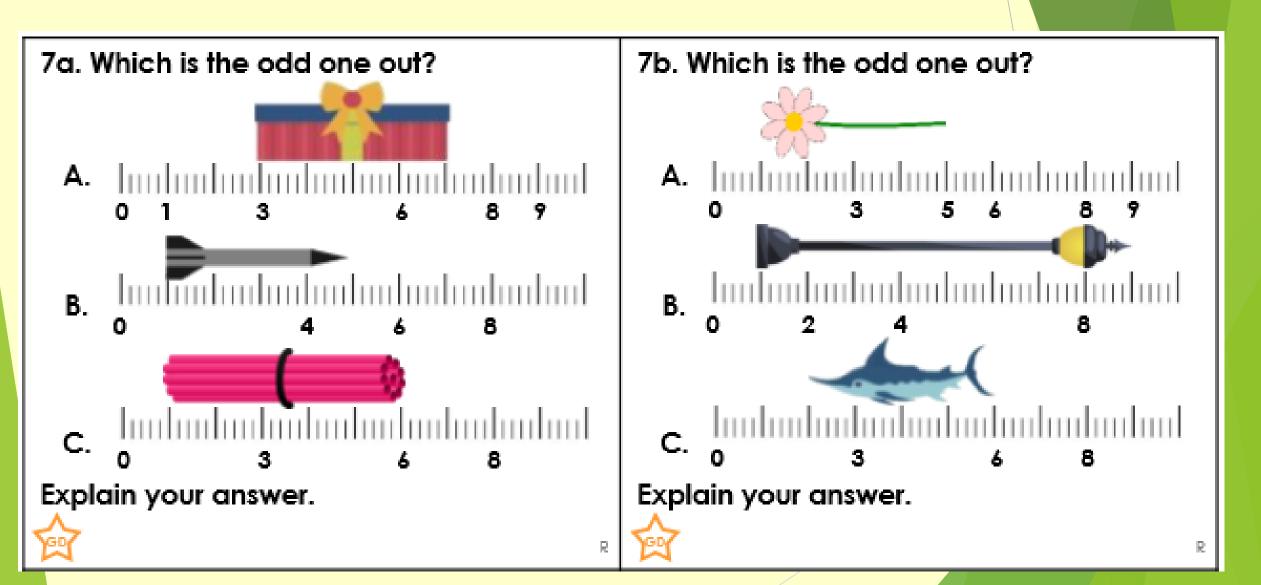
6b. Pippa's colouring pencils measure between 9cm and 14cm.

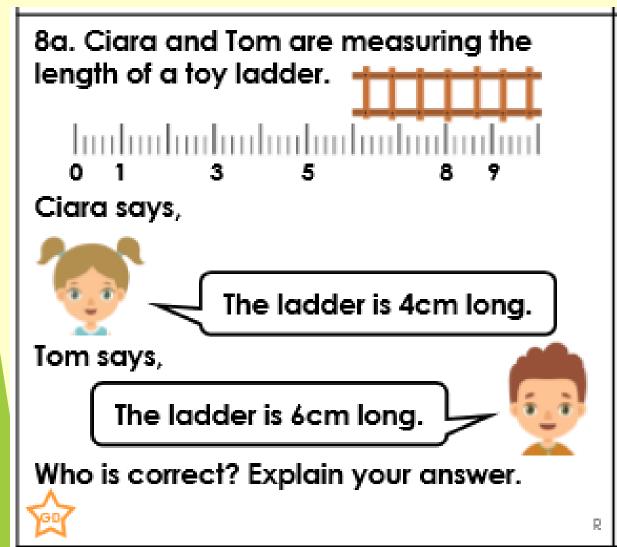
What are the possible measurements her colouring pencils could be?

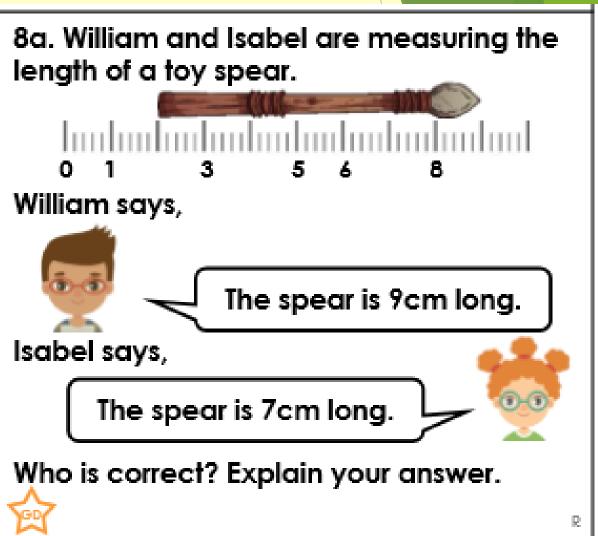






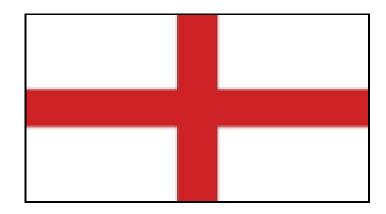






9a. Gemma's flag measures between 10cm and 20cm.

What are the possible measurements her flag could be if her answer is an even number?



9b. Frank's teddy measures between 5cm and 15cm.

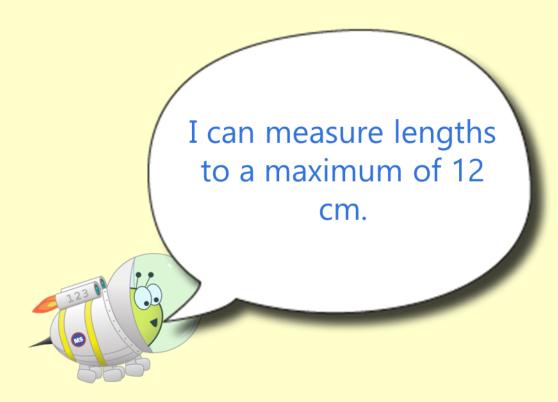
What are the possible measurements his teddy could be if his answer is an odd number?

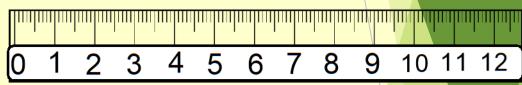






Reflection Time





Do you agree with Astrobee? Explain your answer.

Length and Height

28.04.20

Date: 28.04.20

LO: To be able to measure length using m

Success Criteria

- ✓ I can use my knowledge of measuring using cm to measure length using m
- ✓ I can explain my reasoning when using my knowledge of measuring using cm to measure length using m

Starter

What is the same and what is different? I know that.... Is the same/ different because....

If the yellow and red stick measures 1 metre in length, what's the same and what's different?





Explain your answer.

Descriptive doing

Can you sort the objects into more than and less than 1 m?

Measure the following using metre sticks (or tape measures) to the nearest metre and to the nearest metre and centimetre.

- Five large items from the garden
- Five pieces of furniture from the house
- Five big steps by three different people

Keep a record of the measurements you take in your book!

Example: The bench is 1 metre and 57 centimetres wide.

If 1 metre and 23 centimetres can be written as 1 m and 23 cm, then

1 metre and 45 centimetres

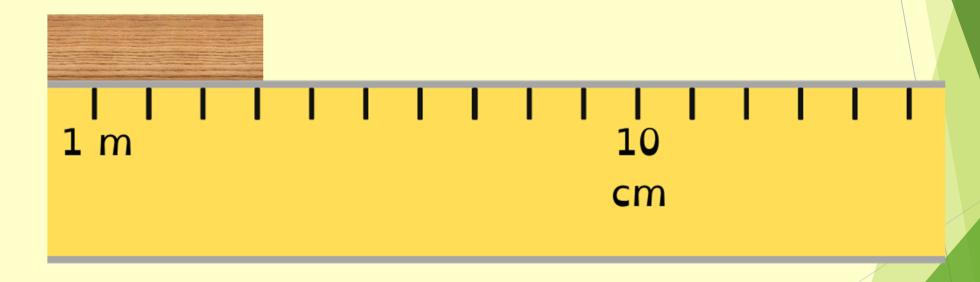
can be written as

If 1 metre and 23 centimetres can be written as 1 m and 23 cm, then

4 metres and 23 centimetres

can be written as

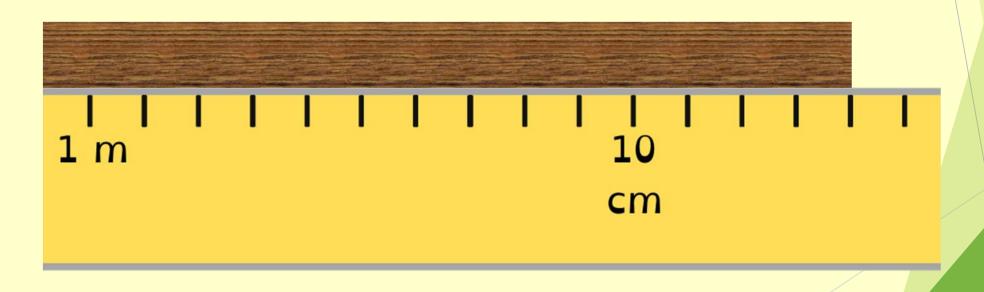
Yasmin is measuring pieces of wood in the timber yard. What is the length of the piece of wood being measured?



Descriptive doing

Now have a go at measuring using m and cm

Yasmin is measuring pieces of wood in the timber yard. What is the length of the piece of wood being measured?



Reflective teaching

Measure the following objects or distances:

- five windows, doors or walls in your house
- two corridors in your house
- The living room

Record the measurements in the format __ m and __ cm.

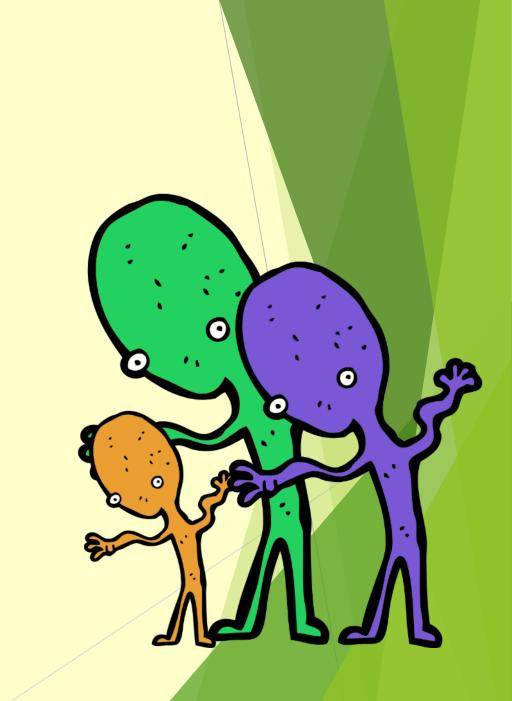
Reflective doing

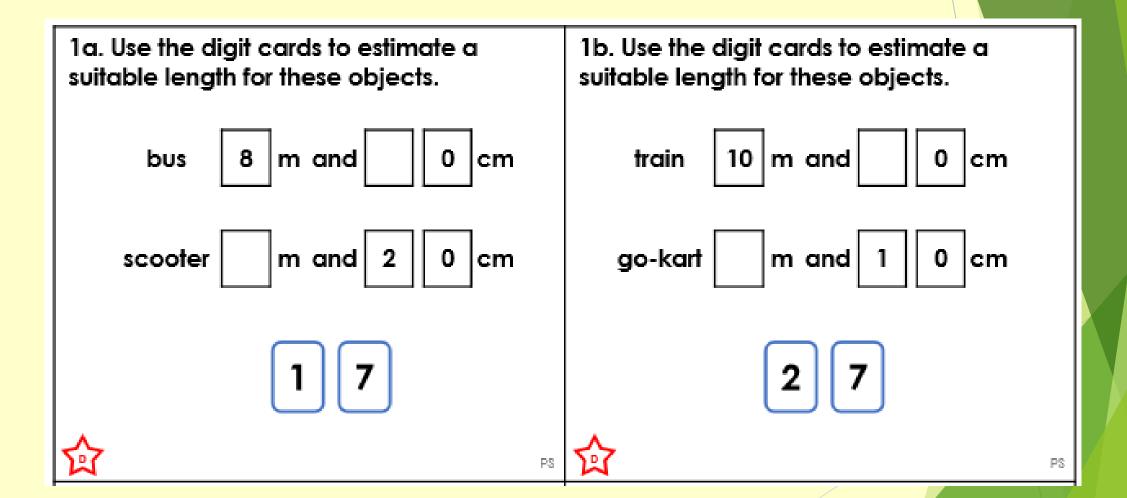
The green alien is 4 m tall.

The green alien is double the height of the orange alien.

The purple alien is taller than the orange alien, but shorter than the green alien.

- a) How tall is the orange alien?
- b) How tall is the purple alien? How many possible measurements can you think of?





2a. Amelia has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
house	banana pencil

Has she sorted them correctly? Explain your answer.



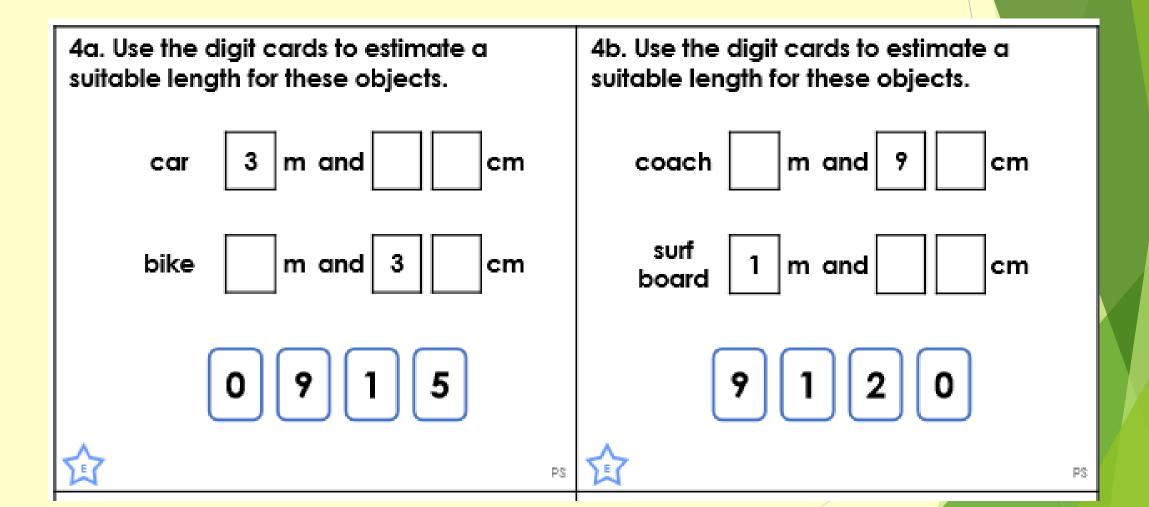
Hasan has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
giraffe	apple bird lamp

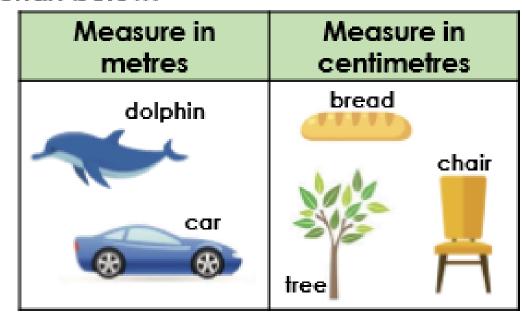
Has he sorted them correctly? Explain your answer.



3a. Alfie is measuring objects. He says, 3b. Anna is measuring objects. She says, 0m1m3m0m1m2m 3mI think the snake is 2m I think the snake is 2m and 90cm. and 20cm. Is he correct? Explain your answer. Is she correct? Explain your answer



5a. Abel has been sorting objects into the chart below.



Has he sorted them correctly? Explain your answer.

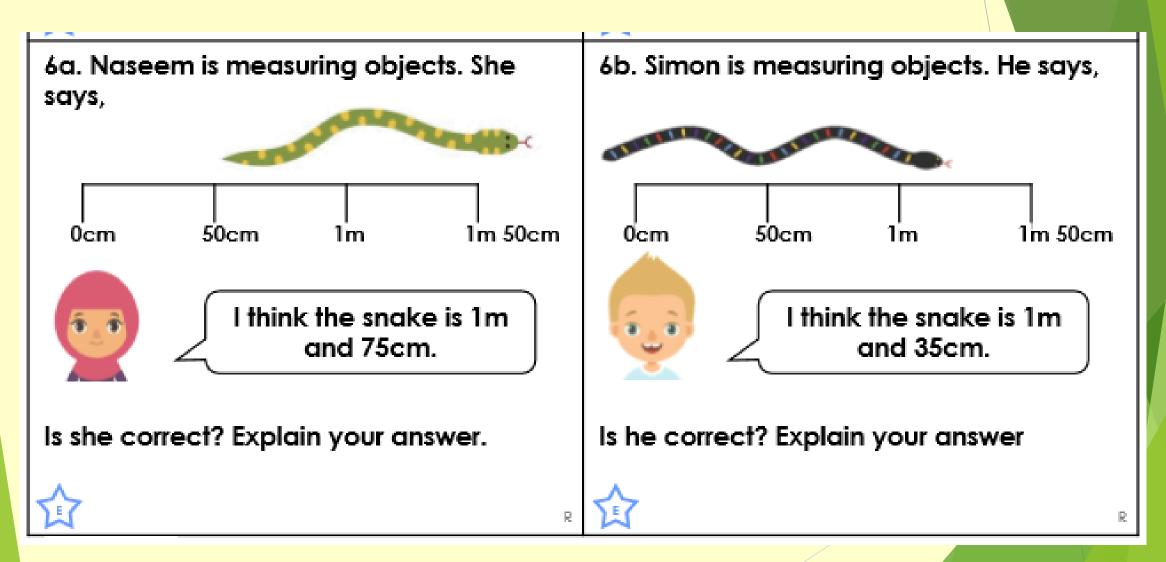
5b. Julia has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
cucumber	ball meerkat
street light	toy

Has she sorted them correctly? Explain your answer.







7a. Use the digit cards to estimate a suitable length for these objects.

van



motormand bike

7b. Use the digit cards to estimate a suitable length for these objects.

lorry

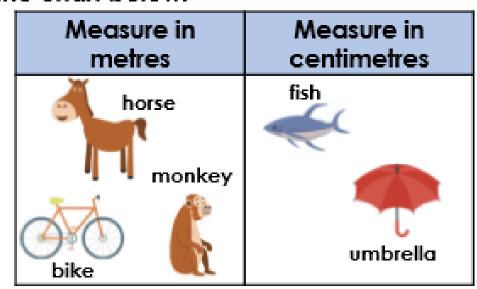


bike m and





8a. Sobia has been sorting objects into the chart below.



Has she sorted them correctly? Explain your answer.

8b. Stefan has been sorting objects into the chart below.

Measure in metres	Measure in centimetres
	wheelbarrow
seal spade	fox frike

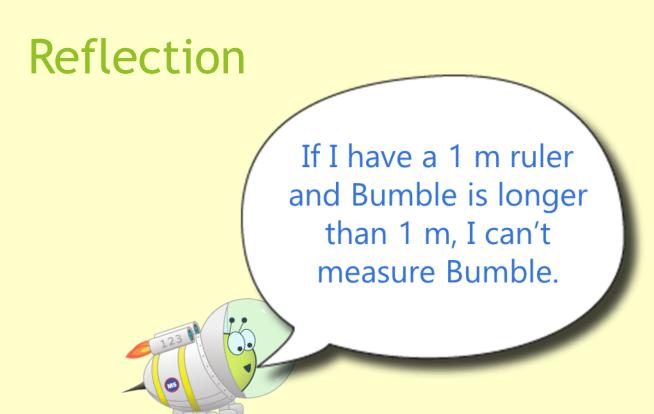
Has he sorted them correctly? Explain your answer.





9a. Awais is measuring objects. He says, 1m 50cm 4m 50cm 0m 1m 50cm 3m0mI think the snake is 379cm. Is he correct? Explain your answer.

9b. Leila is measuring objects. She says, 4m 50cm I think the snake is 324cm. Is she correct? Explain your answer



Do you agree with Astrobee? Explain your answer.

Length and Height

29.04.20

Date: 29.04.20

LO: To be able to compare lengths

Success Criteria

- ✓ I can use phrases such as "longer/taller than", "shorter than" and "equal to" as well as the comparison symbols <, > and = to compare lengths
- ✓ I can explain my reasoning when using phrases such as "longer/taller than", "shorter than" and "equal to" as well as the comparison symbols <, > and = to compare lengths

Starter

What is the same and what is different?
I know that.... Is the same/ different because....

Comparing the following length measurements, what is the same? What's different?

27 m

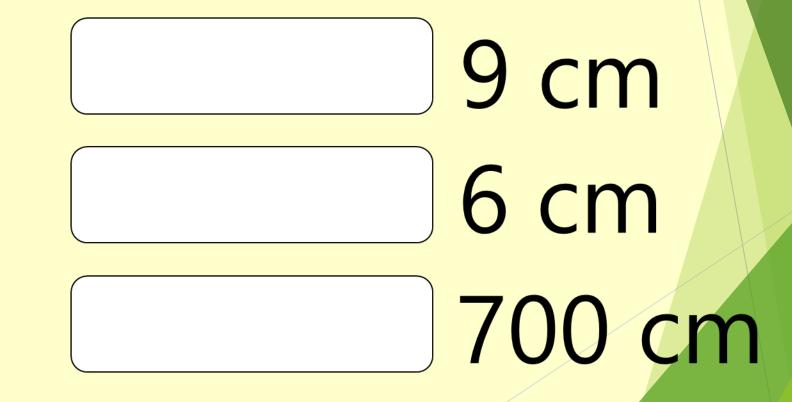
24 m

Explain your answer.

Use the mathematical language to compare the lengths.

Using the phrases, "longer/taller than", "shorter than" and "equal to", compare:

7 cm 6 m seven metres



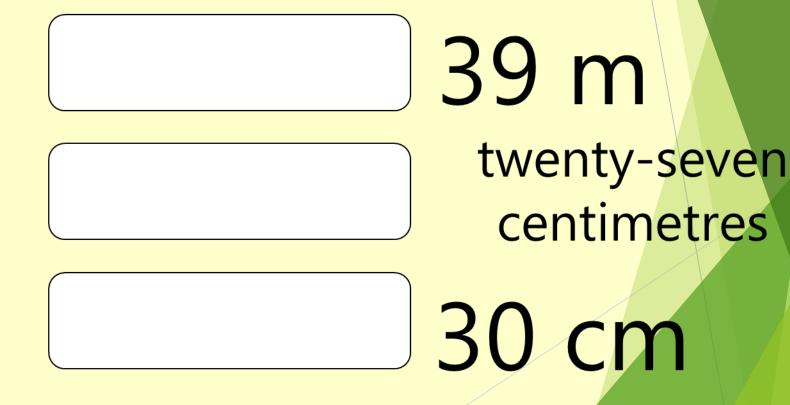
Use the mathematical language to compare the lengths.

Using the phrases, "longer/taller than", "shorter than" and "equal to", compare:

17 m 14 m
16 cm 16 m
twenty 20 cm

Using the phrases, "longer/taller than", "shorter than" and "equal to", compare:

34 m
27 cm
thirty
metres

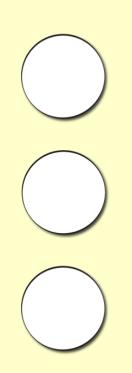


Reflective Doing

Use the symbols <, > and = to complete the following...

Now have a go at using the symbols to explain it is greater than, less than or equal.

4 m 16 cm 19 cm



14 m 6 m

19 centimetres

Reflective Doing

Complete this in your books

Use the symbols <, > and = to complete the following...

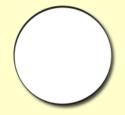
fifty metres

49 cm

fifty-two centimetres







53 cm

49 m

52 cm

Reflective Doing

Complete this in your books

A dark piece of wood is twice as long as a light piece of wood.

Using this information, complete the following using <, > or =.

three pieces of dark wood ____ three pieces of light wood

two pieces of dark wood ____ four pieces of light wood

three pieces of dark wood ____ seven pieces of light wood

1a. Michaela's flower grows to be 12cm. Suzy's flower is shorter.

16cm

9cm

Choose which measurement describes Suzy's flower.

1b. Marley has a longer garden than Luca. It measures 10m.

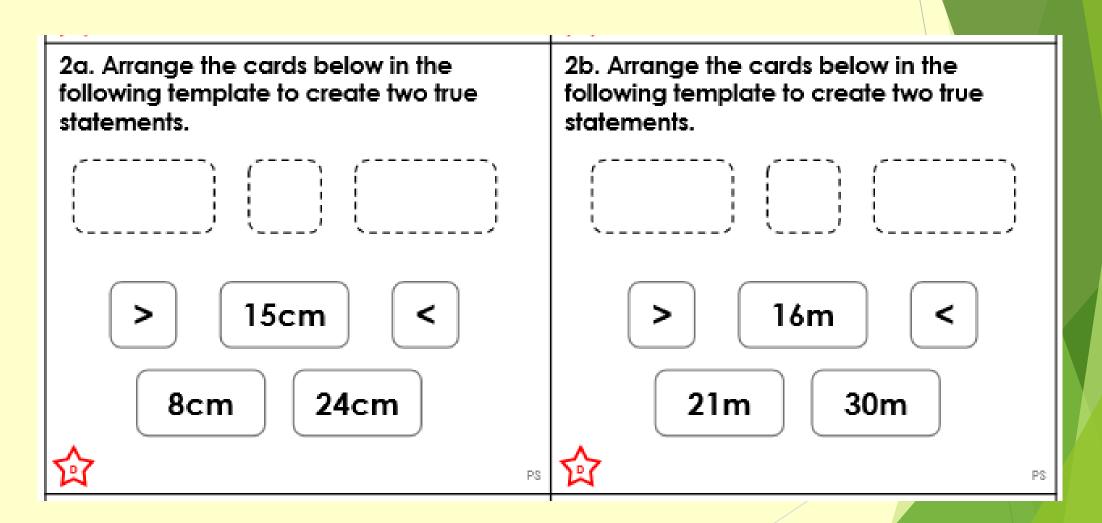
12m

3m

Choose which measurement describes Luca's garden.







3a. Samantha uses a tape measure to find the length of two planks of wood.

Plank A is 2m long and Plank B is 10m long.

Samantha says,



Plank A is shorter than Plank B.

Is she correct? Explain how you know.



Pencil A is 16cm long and Pencil B is 12cm long.

Chris says,



Pencil B is longer than Pencil A.

Is he correct? Explain how you know.





4a. Jordan's piece of string is the longest and measures 3m. Matt's string is smaller than Lucy's and measures 100cm.

4b. Rosie's kitten measures 24cm and is longer than Wilf's kitten. Noreen's kitten is the smallest and measures 12cm.

12m

45m

2m

5cm

17cm

117cm

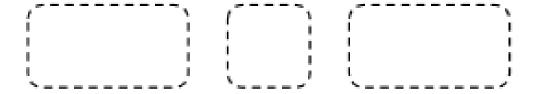
Choose which measurement describes Lucy's piece of string. Choose which measurement describes Wilf's kitten.





5a. Arrange the cards below in the following template to create three true statements. 40cm 35cm 40m

5b. Arrange the cards below in the following template to create three true statements.





1cm 1m





6a. Nathan uses a tape measure to find the length of two boxes.

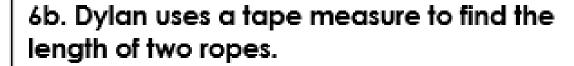
Box A is four metres long and Box B is 4cm long.

Nathan says,



Box B is the longest box.

Is he correct? Explain how you know.



Rope A is 6 centimetres long and Rope B is 6m long.

Dylan says,



Rope A is the longest rope.

Is he correct? Explain how you know.



E

7a. Jaimie's bag is the smallest and measures 60cm. Ella's bag measures 120cm and is longer than Jack's.

7b. Nadia has the shortest sunflower which measures 108cm. Jess's sunflower measures 2m, and Claudia's sunflower is the same height as Jess's.

130cm

4m

1m

2cm

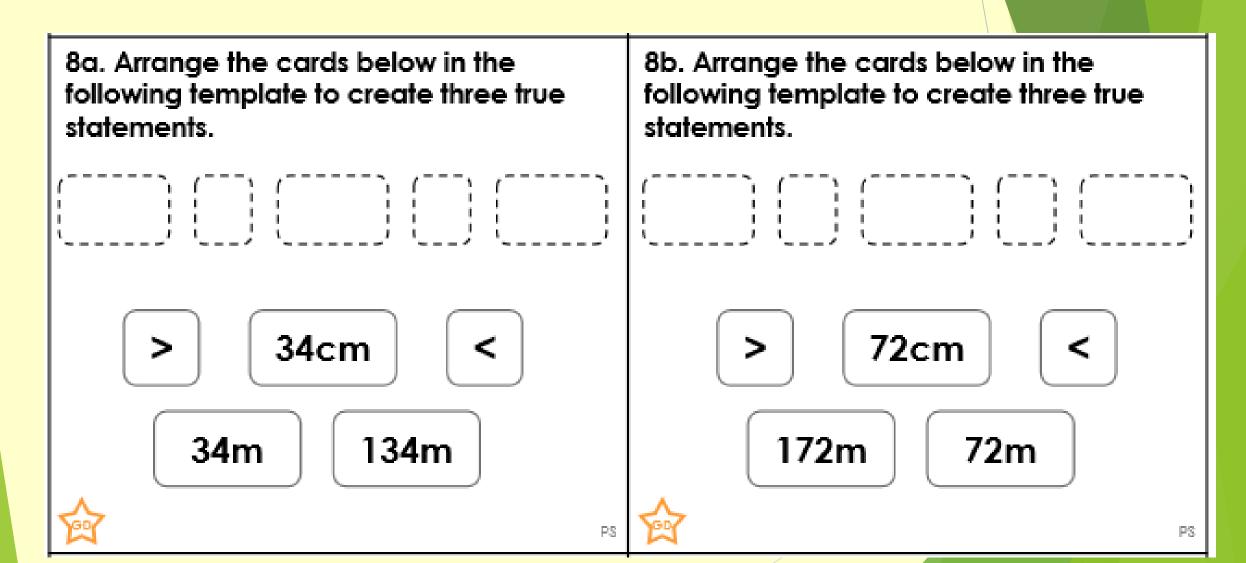
200cm

117cm

Choose which measurement describes Jack's bag. Choose which measurement describes Claudia's sunflower.







9a. Hannah uses a metre stick to find the length of three walls.

Wall A is 1m long, Wall B is ten metres long and Wall C is 100cm long.

Hannah says,



Wall A is shorter than Wall B, but longer than Wall C.

Is she correct? Explain how you know.

9b. Eden uses a ruler to find the length of three picture frames.

Frame A is forty centimetres long, Frame B is 120cm long and Frame C is 29cm long.

Eden says,

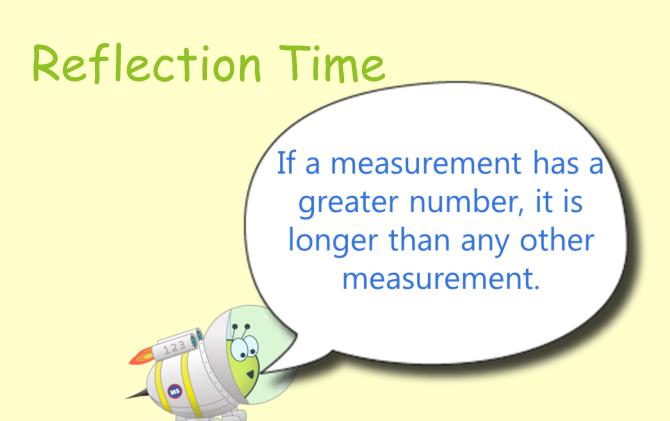


Frame C is shorter than Frame A, but longer than Frame B.

Is she correct? Explain how you know.







Is Astrobee's statement sometimes, always or never true? Explain your answer.



Length and Height

30.04.20

Date: 30.04.20

LO: To be able to order lengths

Success Criteria

- ✓ I can use my knowledge of measuring and comparing lengths to order lengths
- ✓ I can explain my reasoning when using my knowledge of measuring and comparing lengths to order lengths

Starter

Can you explain to a grown up what would come before 10 m and after 15 m in this sequence?

I know... because....

If the following are the second and third steps in a sequence, what would come before and what would come afterwards?

10 m

15 m

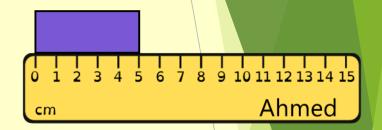
Explain your answer.

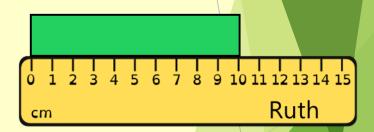
Ahmed, Ruth and Jamal are comparing their rectangles.

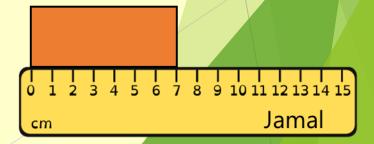
Who has the longest rectangle?

Complete the sentence below:

_____'s rectangle is the longest.





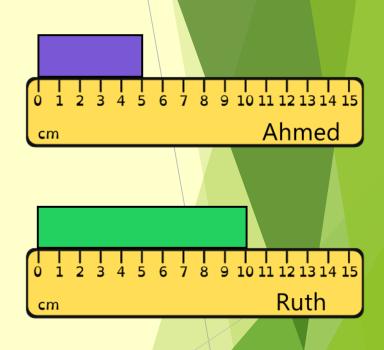


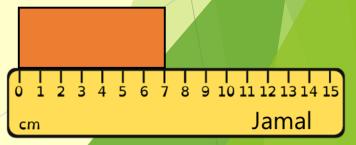
Ahmed, Ruth and Jamal are comparing their rectangles.

Who has the shortest rectangle?

Complete the sentence below:

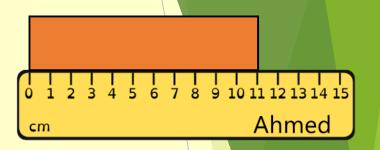
_____'s rectangle is the longest.

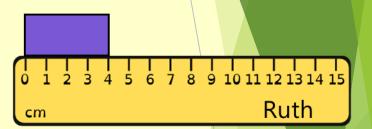




Talking Time:

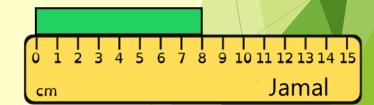
Ahmed, Ruth and Jamal are comparing their rectangles.





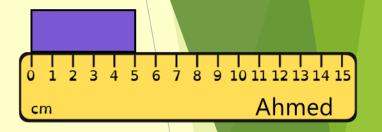
Complete the sentence below:

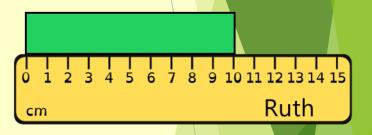
_____'s rectangle is shorter than Jamal's.



Talking Time:

Ahmed, Ruth and Jamal are comparing their rectangles.







Complete the sentence below:

_____'s rectangle is longer than Jamal's.

Descriptive Doing

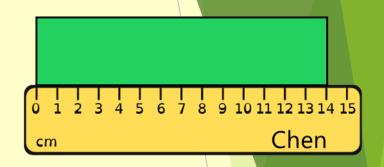
Chen, James and Yasmin are comparing their rectangles. Complete the sentence below:

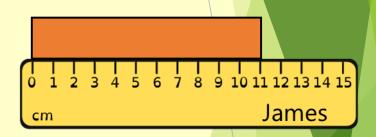


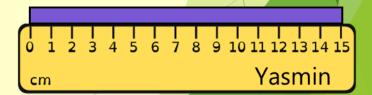
_____'s rectangle the shortest.

_____'s rectangle is longer than Chen's.

_____'s rectangle is shorter than Chen's.







Descriptive Doing

Select four books (of different sizes).

Order them from shortest to longest based on their width. Now, order them from shortest to longest based on their height.

What's the same? What's different? Have certain books changed their place in the order?

Keep a record in your exercise book, explaining your answers.

Remember to explain your answer.

I know that...
because...



1a. These toys have been placed in order of length from longest to shortest.







Match the toy to its length.

Trumpet

Duck

Tower

56cm

11cm

34cm

 These flowers have been placed in order of height from shortest to longest.







Match the food to its height.

Sunflower

Cactus

Lily

98cm

56cm

49cm





320



ltem	Length
loaf	42cm
donut	12cm
bun	20cm

Use the symbol < to order the statements.

loaf

2 buns

donut



ltem	Height
elephant	3m
giraffe	6m
gorilla	1m

Use the symbol > to order the statements.

giraffe

gorilla and elephant

elephant





3a. Samantha has ordered her toy aliens.





Hayley's one-eyed alien is taller than Samantha's one-eyed alien.

Hayley says,

I have the tallest alien.



Is she correct? Convince me.



3b. Kyle has picked and ordered his fruit.







Alex has picked a starfruit that is smaller than Kyle's.

Alex says,

I have picked the smallest fruit.



Is he correct? Convince me.



P

4a. These toys have been placed in order of length from longest to shortest.









Match the toy to its length.

Bus

Helicopter

Boat

Scooter

66cm

46cm

1m 4cm

21cm

order of height from shortest to tallest.





4b. These foods have been placed in



Match the food to its height.

Pineapple

Watermelon

Pumpkin

Carrot

1m 34cm

27cm

17cm

76cm

PS:



5a. Here are the lengths of some toys.

ltem	Length
car	twenty two centimetres
toy snake	55cm
dolls' house	1m 15cm

Use the symbol < to order the statements.

dolls' house

2 cars

car and toy snake

toy snake

5b. Here are the heights of some items.

ltem	Height
desk	61cm
door	1m 50cm
box	30cm

Use the symbol > to order the statements.

desk and box

2 boxes

door

desk



 \mathbb{R}^3



6a. Katie has picked and ordered these flowers.



Lily Sunflower Azalea

Carla has a sunflower that is taller than Katie's sunflower.

Carla says,

My flower will go last.



Is she correct? Convince me.



6b. Billy ordered his toy vehicles.







Zack has a car that is shorter than Billy's.

Billy says,

I have the shortest vehicle.



Is he correct? Convince me.



E

7a. These plants have been placed in order of height from shortest to tallest.









Match the toy to its length.

Palm tree

Sunflower

Cactus

Pine tree

30m

126cm

11m

1m 11cm



7b. These toy vehicles have been placed

in order of length from longest to shortest.





Match the vehicle to its length.

Ambulance

Taxi

Bus

Scooter

164cm

98cm

1m 32cm

78cm



3





8a. Here are the heights of some children.

Name	Height
Katie	85cm
Laura	1m 5cm
Lark	103cm

Use the symbol < to order the statements.

Katie

Lark and Laura Katie and Lark

Laura

8b. Here are the lengths of some items.

Item	Length
table	154cm
TV	60cm
rug	1m 5cm

Use the symbol > to order the statements.

TV and rug

2 rugs

table

TV





9a. Henry has grown these vegetables.







Mike has grown a potato than is longer than Henry's and a radish that is shorter than Henry's.

Mike says,

I have grown the shortest vegetable.



Is he correct? Convince me.



9b. Cassie has picked these flowers.







Lily

Azalea

Sunflower

Millie has picked a lily that is shorter than Cassie's and a sunflower that is taller than Cassie's.

Millie says,

I have picked the tallest flower.



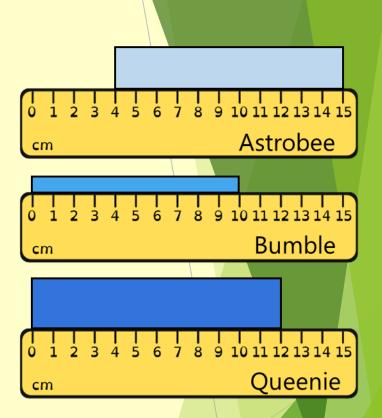
Is she correct? Convince me.



Reflection

My rectangle is the longest as it goes furthest on my ruler.

Is Astrobee's statement true or false? Explain your answer.



Length and Height

01.04.20

Date: 01.05.20

LO: To be able to calculate using length measurements

Success Criteria

- ✓ I can use my knowledge of addition and subtraction to calculate using length measurements
- ✓ I can explain my reasoning when using my knowledge of addition and subtraction to calculate using length measurements

Starter

What's the same? What's different?

87 m - 8 m

Explain your answer.

Can you calculate the measurements to say what's the same and whats different?

I know that it is... because ...

59 m + 20 m

Descriptive teaching

Ahmed has a toy motorcycle and a toy digger.

The motorcycle is 5 cm long. The digger is 10 cm longer than the motorcycle.

a) How long is the digger?

b) How long are the digger and motorcycle combined?

Can you explain these to your grownup?



Descriptive teaching

Ruth has a toy boat and a toy train.

The boat is 10 cm long. The train is 7 cm longer than the boat.

a) How long is the train?

b) How long are the boat and train combined?

Can you explain these to your grownup?



Descriptive doing

Jamal has a toy plane and a toy tractor.

The tractor is 12 cm long. The plane is 9 cm longer than the tractor.

a) How long is the plane?

b) How long are the tractor and plane combined?

Now try these in your book



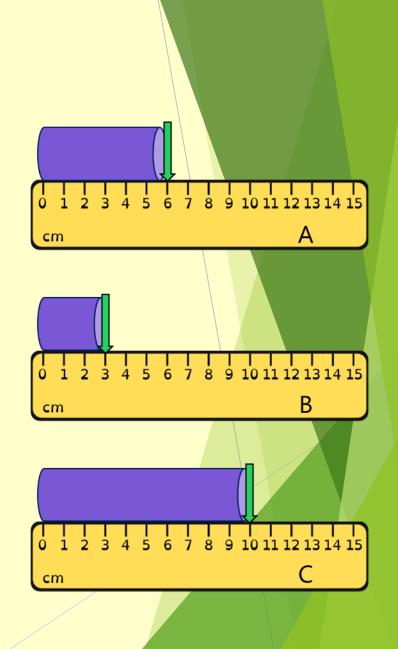
Reflective teaching

Jamal has a popsicle.

He measures it when he first receives it, midway through eating it and just before finishing it.

- a) Which image shows the popsicle at the start? Explain your answer.
- b) What is the difference between the longest and shortest measurements shown?

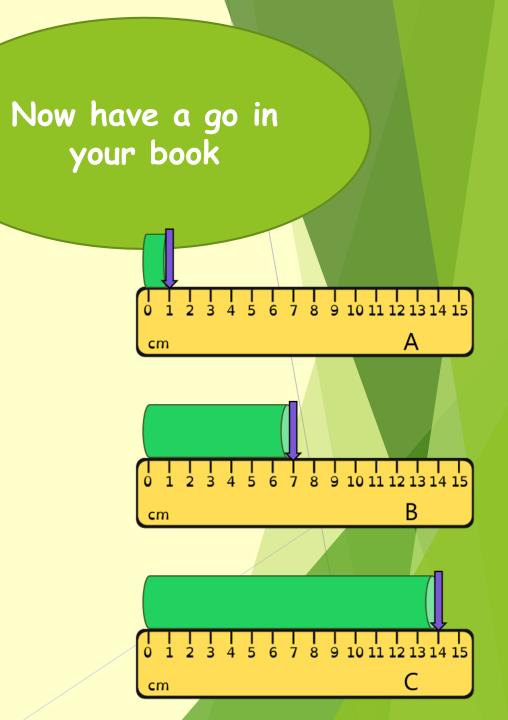
Discuss these with your grownup



Reflective doing

Ahmed has a popsicle. He measures it when he first receives it, midway through eating it and just before finishing it.

- a) Which image shows the popsicle at the start? Explain your answer.
- b) What is the difference between the longest and shortest measurements shown?



1a. Buddy and Bob are making ladders out of straws. Buddy's ladder is 30cm long. Bob's ladder is longer than Buddy's.

When added together, their ladders measure 70cm long.

1b. Ezra and Bea are building with wooden train tracks. Ezra's track is 20cm long. Bea's track is shorter than Ezra's.

When added together, their train tracks measure 30cm long.

How long is Bob's ladder?

How long is Bea's train track?





4a. Nancy and Joy are making beaded bracelets. Nancy's bracelet is 25cm long. Joy's bracelet is shorter than Nancy's.

When added together, their bracelets measure between 41cm and 44cm long.

4b. Saffie and Ali are lining up toy cars. Saffie's line is 15cm long. Ali's line is longer than Saffie's.

When added together, their lines of toy cars measure between 51cm and 54cm.

How long could Joy's bracelet be?

How long could Ali's line of toy cars be?





7a. Tia and Abe are making a bridge out of wooden planks. Tia's bridge is 5m long. Abe's bridge is shorter than Tia's.

When added together, their bridges measure 700cm long.

7b. Amby and Una are building a wooden train track. Amby's track is 200cm long. Una's track is longer than Amby's.

When added together, their tracks measure 8m long.

How long is Abe's bridge in m?

How long is Una's train track in cm?





Reflection Time

If I combine an odd length with an odd length, the new length will also be odd.

Is Astrobee's statement sometimes, always or never true? Explain your answer.