
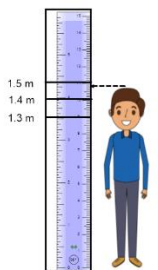
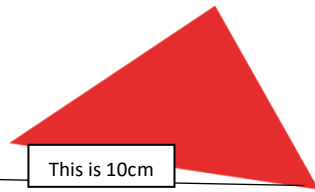


Year 4 Maths – week beginning 8.6.2020

Theme	<p align="center">Mass, Volume and Length Lesson 6 of 11 Converting units of volume</p>	<p align="center">Mass, Volume and Length Lesson 7 of 11 Measuring Height</p>	<p align="center">Mass, Volume and Length Lesson 8 of 11 Measuring Length</p>	<p align="center">Mass, Volume and Length Lesson 9 of 11 Converting units of length</p>	<p align="center">Mass, Volume and Length Lesson 10 of 11 Converting units of length</p>																
<p>Factual fluency (to aid fluency)</p>	<p>Practise comparing decimals on a number line. (answer 10 questions)</p>	<p>Practise placing decimals on a number line.(answer 10 questions)</p>	<p>Practise finding the perimeter of rectangles (answer 10 questions)</p>	<p>Practise comparing and converting different units of measure (answer 10 questions)</p>	<p>Which unit of length is most appropriate?(answer 10 questions)</p>																
<p>Problem/ activity of the day</p> <p>Remember, just like in class, you can still show the depth of your knowledge LINK</p>	<p>(Lesson 1 resources below) MAKING LINKS: Last week, you learnt how to find the volume of a liquid in a container in hundredths. Today you are going to find approximate volume to the nearest 100ml.</p> <p>THINK: (support below) Can you help me with this problem?</p>  <p align="center">2 pints= 1136ml</p> <p>Child A says, "It is about 1 l!" Child B says, "It is about 2 l!" Child C says, "It is about 1.1 l!" Child D says, "It is about 1.2 l!" Who is correct? Our problem is on textbook page 103. Look at it now.</p> <p>SEE: (model below) Our problem and the solution are shown on page 103-105 in your textbook. Watch the lesson video here to help you.</p> <p>DO: Use what you have learnt today to help you solve: Part 1: questions from textbook page 106. Check your answers before moving onto part 2. Part 2: Workbook, Chapter 10, Worksheet 6, Page 75-76.</p>	<p>(Lesson 2 resources below) MAKING LINKS: Yesterday, we learnt how to find the approximate volume of a liquid to the nearest 100ml. Today we are going to use our decimal understanding to measure height in metres.</p> <p>THINK: (support below)</p>  <p>Child A says he is 1.7 m tall. Child B says he is 1.52 m tall. Child C says he is 1.48 m tall. Child D says he is 1.45 m tall.</p> <p>Explain how each child arrives at his or her conclusion. Who is correct? Our problem is on textbook page 107. Look at it now.</p> <p>SEE: (model below) Our problem and solution are shown on page 108 and 109 of your textbook.</p> <p>DO: Use what you have learnt today to help you solve: Part 1: questions from textbook page 111. Check your answers before moving onto part 2. Part 2: Workbook, Chapter 10, Worksheet 7, Page 77-78.</p>	<p>(Lesson 3 resources below) MAKING LINKS: Yesterday, we learnt how to use our decimal understanding to measure height in metres. Today, we are doing to use our decimal understanding to help us measure length in metres.</p> <p>THINK: (support below)</p>  <p>This is not to scale!</p> <p>Is the perimeter of the triangle more than 20cm? Our problem is on textbook page 112. Look at it now.</p> <p>SEE: (model below) Our problem and solution are shown on page 112 and 113 of your textbook.</p> <p>DO: Use what you have learnt today to help you solve: Part 1: questions from textbook page 114 and 115. Check your answers before moving onto part 2. Part 2: Workbook, Chapter 10, Worksheet 8, Page 79-80.</p>	<p>(Lesson 4 resources below) MAKING LINKS: Yesterday, we learnt how to use our understanding of decimals to measure length in metres. Today, we are learning to convert between centimetres and metres. You will need to remember your multiplying by 100 knowledge.</p> <p>THINK: (support below) This table shows how far six athletes jumped.</p> <table border="1" data-bbox="1467 614 1758 821"> <tr><td>Jumper 1</td><td>7.78m</td></tr> <tr><td>Jumper 2</td><td>8.12m</td></tr> <tr><td>Jumper 3</td><td>8m 1cm</td></tr> <tr><td>Jumper 4</td><td>8.10m</td></tr> <tr><td>Jumper 5</td><td>7.70m</td></tr> <tr><td>Jumper 6</td><td>8.07m</td></tr> </table> <p>Who jumped further, Jumper 3 or Jumper 4? Our problem is on textbook page 116. Look at it now.</p> <p>SEE: (model below) Our problem and solution are shown on page 116- 118. Please watch the video here for an explanation.</p> <p>DO: Use what you have learnt today to help you solve: Part 1: questions from textbook page 118 and 119. Check your answers before moving onto part 2. Part 2: Workbook, Chapter 10, Worksheet 9, Page 81-82.</p>	Jumper 1	7.78m	Jumper 2	8.12m	Jumper 3	8m 1cm	Jumper 4	8.10m	Jumper 5	7.70m	Jumper 6	8.07m	<p>(Lesson 5 resources below) MAKING LINKS: Yesterday, we learnt how to convert between centimetres and metres using our knowledge of multiplying by 100. Today, we are learning to convert between metres and kilometres (km). You will need to remember your multiplying by 1000 knowledge.</p> <p>THINK: (support below) After 20 minutes of a 10 km race:</p> <table border="1" data-bbox="1814 646 2184 742"> <tr><td>Child A</td><td>Completed 7 km 20 m</td></tr> <tr><td>Child B</td><td>Completed 7.2 km</td></tr> </table> <p>Who was ahead in the race after 20 minutes, Child A or Child B? Our problem is on textbook page 120. Look at it now.</p> <p>SEE: (model below) Our problem and solution are shown on page 120- 121. Please watch the video here for an explanation.</p> <p>DO: Use what you have learnt today to help you solve: Part 1: questions from textbook page 121. Check your answers before moving onto part 2. Part 2: Workbook, Chapter 10, Worksheet 10, Page 83-84.</p>	Child A	Completed 7 km 20 m	Child B	Completed 7.2 km
Jumper 1	7.78m																				
Jumper 2	8.12m																				
Jumper 3	8m 1cm																				
Jumper 4	8.10m																				
Jumper 5	7.70m																				
Jumper 6	8.07m																				
Child A	Completed 7 km 20 m																				
Child B	Completed 7.2 km																				
<p>Methods, tips, clues & checks</p>	<p>Day 1 resources and answers below</p>	<p>Day 2 resources and answers below</p>	<p>Day 3 resources and answers below</p>	<p>Day 4 resources and answers below</p>	<p>Day 5 resources and answers below</p>																

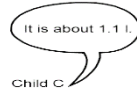
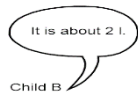
[See below for resources to support you to THINK-SEE-DO](#)

DAY 1 RESOURCES

Think



2 pints = 1136ml



Look at page 103 of your textbook now. Be sure to read all of the information as much as you need.

Which child is correct? Could there be more than one correct answer?

Do

Part 1:

Textbook page 106, questions 1 and 2.

Check your answers below.

Part 2:

Workbook, Chapter 10, Worksheet 6, Page 75-76.

Remember to use number lines to help you

Deepening:

1. Estimate your answer first by rounding each cup to the nearest 100ml.
2. Calculate the actual answer
3. Find the different between the estimate and the real answer.
4. True or False- it is useful to round the cups to the nearest 100ml before working out the actual answer- explain.

6 Tai stacks 6 plastic cups into a pyramid. Each plastic cup contains 310 ml of water.

- a Find the total volume of water in the 6 cups.
- b One cup falls over onto the table. How much water is left?

See

Check the solution on pages 103-105 of your textbook.

[Watch the lesson video here.](#)

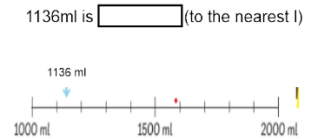
Part 1

1136 ml is closer to 1000ml than to 2000 ml.

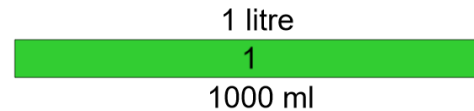
1136 ml is 1000 ml (to the nearest 1000ml)



Child A is more accurate as 1136 ml is closer to 1 l than 2 l.



1136ml is [] (to the nearest 100 ml)



Part 2

We know that 1000 ml is 1 l.

If we split 1 whole litre into 10 parts each part is worth 100ml.

We know, from our decimal's knowledge, that 1 part out of a whole = 0.1 therefore:

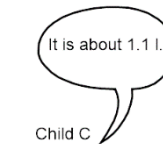
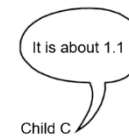
100ml = 0.1 l



Part 3

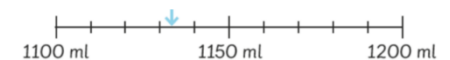
1136 ml is closer to 1100ml than to 1200 ml.

1136 ml is 1100 ml (to the nearest 100ml)



Child C is more accurate as 1136 ml is closer to 1.1 l.

1136ml is [] (to the nearest 100 ml)

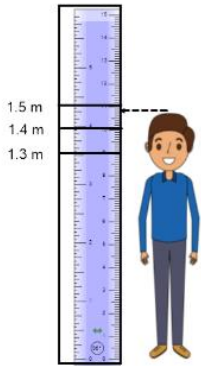


Remember!

1 litre = 1000 ml

DAY 2 RESOURCES

Think



Child A says he is 1.7 m tall.
Child B says he is 1.52 m tall.
Child C says he is 1.48 m tall.
Child D says he is 1.45 m tall.

Explain how each child arrives at his or her conclusion.
Who is correct?

Look at page 107 of your textbook now.
Be sure to read all of the information as much as you need.

Do

Part 1:

Textbook page 111, questions a, b and c.
Check your answers below.

Part 2:

Workbook, Chapter 10, Worksheet 7, Page 77-78.
Remember to use number lines to help you

Deepening:

2 Draw a triangle relationship for these lengths.

a 300 mm b 60 cm c 0.5 m
d 700 mm e 80 cm f 2.4 m

Example

2000 mm

200 cm 2 m

Explain how you have converted these lengths.

See

Check the solution on pages 108-109 of your textbook.

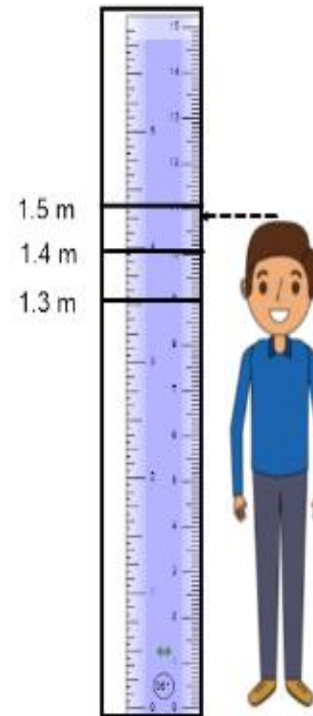


10 cm is 1 tenth of a meter

$$10 \text{ cm} = 0.1 \text{ m}$$

1 cm is 1 hundredth of a meter

$$1 \text{ cm} = 0.01 \text{ m}$$



Child C

Child C is correct.

The man is 2cm below 1.5m therefore he is 148 cm tall or 1.48 m.

Child A

What mistake did Child A make?

Child A thinks that 1 cm is 0.1.

We know that 1 cm = 0.01 m.

Child A also counted on from 1.5 m rather than counting back.

Child B

What mistake did Child B make?

Child B counted on from 1.5 m.

He should count back from 1.5m.

Child D

What mistake did Child D make?

Child D thinks that any height between 1.4 m and 1.5 m is 1.45 m.

This is not case.

DAY 3 RESOURCES

Think



This is 10cm

It is really important you use the textbook for today's problem. This is just an example and is not to scale. You may get a different answer if you use this as your example.

Turn to page 112 now.

Problem

Is the perimeter of the triangle more than 20cm?

Do

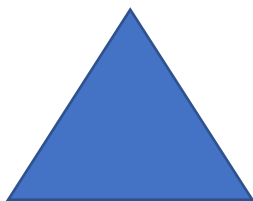
Part 1:

Textbook page 114 and 115, questions 1, 2 and 3.

Part 2:

Workbook, Chapter 10, Worksheet 8, Page 79- 80. Remember to use number lines to help you

Deepening:



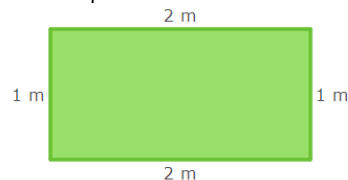
Can these two shapes have the same perimeter? Make sure to use diagrams and try to find at least 3 different solutions before you are sure.

Can two other different shapes have the same perimeter? We would love to see your solutions uploaded to Seesaw.

See

Check the solution on pages 112-113 of your textbook.

What is perimeter?

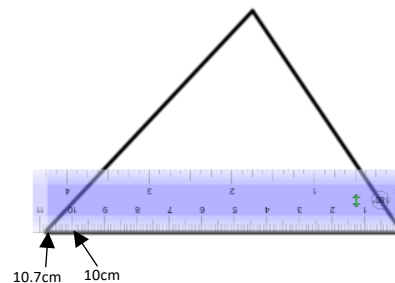


The perimeter is the distance around the outside of a two-dimensional shape.

For this rectangle the perimeter would be:

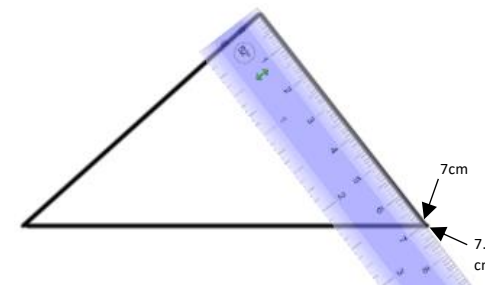
$$1\text{ m} + 1\text{ m} + 2\text{ m} + 2\text{ m} = 6\text{ m}$$

Problem



As you can see, length of RY is 10.7 cm. This means that there are 10 whole cm measured and then there is part of a cm between 10 cm and 11 cm. There is 0.7 cm over 10 cm so this means that the length of RY is 10.7 cm in total.

As you can see, length of RT is 7.2 cm. This means that there are 7 whole cm measured and then there is part of a cm between 7 cm and 8cm. There is 0.2 cm over 7 cm so this means that the length of RT is 7.2 cm in total.



As you can see, length of YT is 8.5 cm. This means that there are 8 whole cm measured and then there is part of a cm between 8 cm and 9 cm. There is 0.5 cm over 8 cm so this means that the length of YT is 8.5 cm in total.

If we approximate each length, we can clearly see that the perimeter is longer than 20 cm.

$$10\text{ cm} + 7\text{ cm} + 9\text{ cm} = 26\text{ cm}$$

$$26\text{ cm} > 20\text{ cm}$$



DAY 4 RESOURCES

Think

This table shows how far six athletes jumped.

Jumper 1	7.78m
Jumper 2	8.12m
Jumper 3	8m 1cm
Jumper 4	8.10m
Jumper 5	7.70m
Jumper 6	8.07m

Who jumped further, Jumper 3 or Jumper 4?
How do you know?

Do

Part 1:

Textbook page 118 and 119, questions 1 and 2.
Check your answers below.

Part 2:

Workbook, Chapter 10, Worksheet 9, Page 81- 82.

Deepening:

Convert these measurements to metres.

a 40 cm b 60 cm c 90 cm d 250 cm
e 380 cm f 500 mm g 800 mm h 900 mm

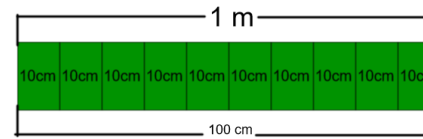
Remember to show your understanding using diagrams.

See

Check the solution on pages 116-118 of your textbook.

Please watch this video [here](#) for an explanation of each conversion.

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



10 cm is 1 tenth of a meter

$$10 \text{ cm} = 0.1 \text{ m}$$

$$8.10 \text{ m} = \boxed{} \text{ cm}$$

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

$$8 \text{ m} = 800 \text{ cm}$$

$$+ 0.10 \text{ m} = 10 \text{ cm}$$

$$\underline{8.10 \text{ m} = 810 \text{ cm}}$$

To work out our problem, we need to work out both jumpers' distances in the same unit. Then we can compare them more accurately.

Here we are going to see what 8.10 m is.
We know that 1 m = 100cm

Now we have both distances in cm we can compare them.
Jumper 3 = 801 cm
Jumper 4 = 810 cm

Jumper 4 jumped further because 810cm > 801 cm

$$8.12 \text{ m} = \boxed{} \text{ cm}$$

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

$$8 \text{ m} = 800 \text{ cm}$$

$$0.10 \text{ m} = 10 \text{ cm}$$

$$+ 0.02 \text{ m} = 2 \text{ cm}$$

$$\underline{8.12 \text{ m} = 812 \text{ cm}}$$

$$8.07 \text{ m} = \boxed{} \text{ cm}$$

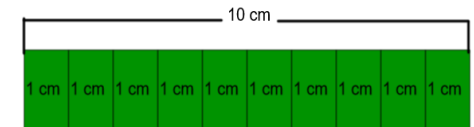
$$1 \text{ m} = 100 \text{ cm}$$

$$8 \text{ m} = 800 \text{ cm}$$

$$+ 0.07 \text{ m} = 7 \text{ cm}$$

$$\underline{8.07 \text{ m} = 807 \text{ cm}}$$

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



1 cm is 1 hundredth of a meter

$$1 \text{ cm} = 0.01 \text{ m}$$

Jumper 5

$$7.70 \text{ m} = \boxed{} \text{ cm}$$

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

$$7 \text{ m} = 700 \text{ cm}$$

$$+ 0.70 \text{ m} = 70 \text{ cm}$$

$$\underline{7.70 \text{ m} = 770 \text{ cm}}$$

DAY 5 RESOURCES

Think

After 20 minutes of a 10 km race:

Child A	Completed 7 km 20 m
Child B	Completed 7.2 km

Who was ahead in the race after 20 minutes, Child A or Child B?

Do

Part 1:

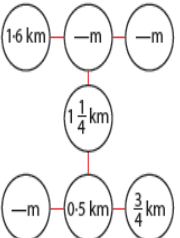
Textbook page 121

Check your answers below.

Part 2:

Workbook, Chapter 10, Worksheet 10, Page 83- 84.

Deepening:

Mastery	Mastery with Greater Depth
<p>Complete the missing measures so that each line of three gives a total distance of 2 km.</p> 	<p>In total Sam and Tom together cycle a distance of 120 km. Sam cycles twice the distance that Tom cycles. How far does Sam cycle?</p>

See

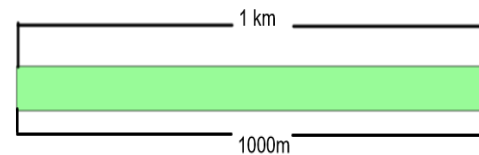
Check the solution on pages 120-121 of your textbook.
Watch a video [here](#) for an explanation.

$$10 \text{ km} = \boxed{} \text{ m}$$

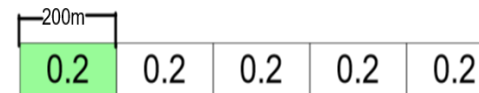
$$1 \text{ km} = 1000 \text{ m}$$

$$10 \text{ km} = 10,000 \text{ m}$$

$$7.2 \text{ km} = \boxed{} \text{ m}$$



0.2 or 2 tenths is equal to $\frac{1}{5}$



$$7 \text{ km } 20 \text{ m} = 7020 \text{ m}$$

Therefore:

$$7200 \text{ m} > 7020 \text{ m}$$

$$7.2 \text{ km} > 7 \text{ km } 20 \text{ m}$$

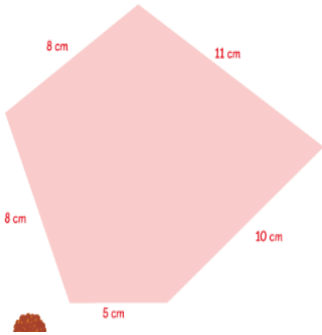
$$1 \text{ km} = 1000 \text{ m}$$

$$7 \text{ km} = 7000 \text{ m}$$

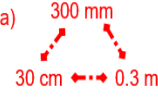
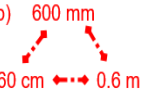
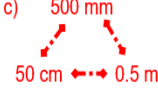
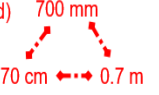
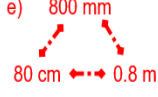
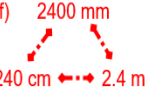
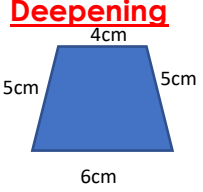
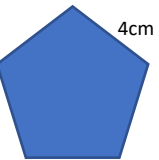
$$+ 0.2 \text{ km} = 200 \text{ m}$$

$$\hline 7.2 \text{ km} = 7200 \text{ m}$$

ANSWERS – part 1:

<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>	<u>Day 4</u>	<u>Day 5</u>												
<p>1. a) 500 ml b) 1800 ml</p> <p>2. Yes. Both bottles have liquid to the same height, but one bottle is wider than the other so it holds more. Therefore, the wider bottle will contain 1.3 l as 1 l 300 ml is more than 1 l 30 ml.</p>	<p>a) 1.2 m b) 1.65 m c) 1.32 m d) 0.9 m e) 0.89 m</p>	<p>1. a) UD = 4.9 cm DK = 4 cm KC = 6 cm CU = 6.5 cm</p> <p>b) LF = 5.2 cm FY = 5.2 cm YL = 5.2 cm</p> <p>c) All sides are 6.5 as it is a square.</p> <p>3.</p>  <p>The estimated perimeter is 42cm.</p>	<table border="1" data-bbox="1344 295 1729 518"> <thead> <tr> <th></th> <th>Distance</th> </tr> </thead> <tbody> <tr> <td>Child 1</td> <td>410 cm</td> </tr> <tr> <td>Child 2</td> <td>401 cm</td> </tr> <tr> <td>Child 3</td> <td>390 cm</td> </tr> <tr> <td>Child 4</td> <td>392 cm</td> </tr> <tr> <td>Child 5</td> <td>302 cm</td> </tr> </tbody> </table> <p>2. a) Greg beat Mitchell for the gold medal by 15 cm.</p> <p>8.31 = 8 m 31 cm 8.16 = 8 m 16 cm</p> <p>b) Michel lost the bronze medal to will by 1 cm.</p> <p>8.12 m = 8 m 12 cm 8.11 m = 8 m 11 cm</p>		Distance	Child 1	410 cm	Child 2	401 cm	Child 3	390 cm	Child 4	392 cm	Child 5	302 cm	<p>Museum → City Hall = 3000m</p> <p>City Hall → Church = 1050 m</p> <p>Church → Station = 950 m</p> <p>Station → City Hall = 1300 m</p>
	Distance															
Child 1	410 cm															
Child 2	401 cm															
Child 3	390 cm															
Child 4	392 cm															
Child 5	302 cm															

ANSWERS – part 2 and deepening:

Day 1	Day 2	Day 3	Day 4	Day 5
<p>1. a) 1300 ml b) 850 ml c) 2250 ml</p> <p>2. a) 3450 ml and 3045 ml b) trough c) bucket d) 3000ml e) trough and bucket</p> <p>Deepening a) 1860 ml b) 1550 ml</p>	<p>1. a) 1.8m b) 1.25m c) 1.68m d) 1.1m</p> <p>2. a) Lulu=1.445m Elliot= 1.555m Amira= 1.42m</p> <p>b) Elliot C) Amira d) Amira, Lulu, Elliot</p> <p>Deepening</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>a) </p> </div> <div style="text-align: center;"> <p>b) </p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>c) </p> </div> <div style="text-align: center;"> <p>d) </p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>e) </p> </div> <div style="text-align: center;"> <p>f) </p> </div> </div>	<p>1. a) AB= 3.2 cm AC= 4.7 cm BC= 3.5 cm</p> <p>b) WX=2.8 cm XY= 4.3 cm ZY= 2.8 cm WZ= 4.3 cm</p> <p>2. a) Answers may vary. b) Answers may vary.</p> <p>3. Perimeter = 22 cm</p> <p>Deepening</p> <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>Yes. Perimeter of trapezium= $5\text{ cm} + 6\text{ cm} + 5\text{ cm} + 6\text{ cm} = 20\text{ cm}$</p> <p>Perimeter of regular pentagon= $4\text{ cm} + 4\text{ cm} + 4\text{ cm} + 4\text{ cm} + 4\text{ cm} = 20\text{ cm}$</p>	<p>1. a) 220 cm b) 485 cm c) 804 cm d) 161 cm e) 383 cm</p> <p>2. a) Ravi's plane : 5 m 2 cm Charles' plane : 4 m 38 cm Sam's plane : 6 m 19 cm</p> <p>b) Sam's c) Charles' d) 181</p> <p>Deepening</p> <p>a) 0.4 m b) 0.6 m c) 0.9 m d) 2.5 m e) 3.8 m f) 0.5 m g) 0.8 m h) 0.9 m</p>	<p>1. a) 1960 m b) 800 m c) 5600 m d) 2350 m e) 2200 m f) 7560 m</p> <p>2. a) Holly: 2540 m Ruby: 3050 m Lulu: 2890 m</p> <p>b) Ruby C) Holly D) Holly, Lulu, Ruby</p> <p>Deepening</p> <div style="border: 1px solid black; padding: 5px;"> <p style="text-align: center; background-color: #008080; color: white; margin: 0;">Mastery</p> <p style="font-size: small;">Complete the missing measures so that each line of three gives a total distance of 2km.</p> <div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px;">16 km</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px;">-m</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px;">-m</div> </div> <div style="margin: 5px 0;">→ 250m</div> <div style="display: flex; justify-content: center; width: 100%;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px;">1 1/4 km</div> </div> <div style="margin: 5px 0;">→ 150m</div> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="border: 1px solid black; border-radius: 50%; padding: 5px;">-m</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px;">0.5 km</div> <div style="border: 1px solid black; border-radius: 50%; padding: 5px;">3/4 km</div> </div> <div style="margin: 5px 0;">→ 750m</div> </div> </div>