## A Story of Units®

## Eureka Math<sup>™</sup> Grade 2, Module 2

Student File\_A

Contains copy-ready classwork and homework as well as templates (including cut outs)

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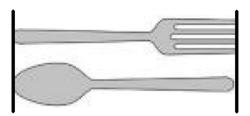
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This book may be purchased from the publisher at eureka-math.org
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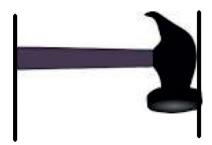
Name	Date
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Use centimeter cubes to find the length of each object.

1. The picture of the fork and spoon is about \_\_\_\_\_ centimeter cubes long.



2. The picture of the hammer is about \_\_\_\_\_ centimeters long.



3. The length of the picture of the comb is about \_\_\_\_\_ centimeters.



4. The length of the picture of the shovel is about \_\_\_\_\_ centimeters.



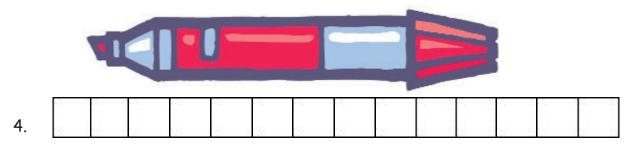
5. The head of a grasshopper is 2 centimeters long. The rest of the grasshopper's body is 7 centimeters long. What is the total length of the grasshopper?

- 6. The length of a screwdriver is 19 centimeters. The handle is 5 centimeters long.
  - a. What is the length of the top of the screwdriver?

b. How much shorter is the handle than the top of the screwdriver?



Nar	ne		Date
Cou	nt each centimeter cube to f	ind the length of each o	bject.
1.		The crayon is	centimeter cubes long.
2.		The pencil is	centimeter cubes long.
3		The clothespin is	centimeter cubes long



The length of the marker is \_\_\_\_\_ centimeter cubes.

5.	Richard has 43 centimeter cubes.	Henry has 30 centimeter cubes.	What is the
	length of their cubes altogether?		

6. The length of Marisa's loaf of bread is 54 centimeters. She cut off and ate 7 centimeters of bread. What is the length of what she has left?

7. The length of Jimmy's math book is 17 centimeter cubes. His reading book is 12 centimeter cubes longer. What is the length of his reading book?



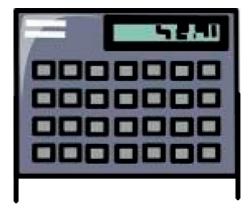
Name	Data
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Find the length of each object using one centimeter cube. Mark the endpoint of each centimeter cube as you measure.

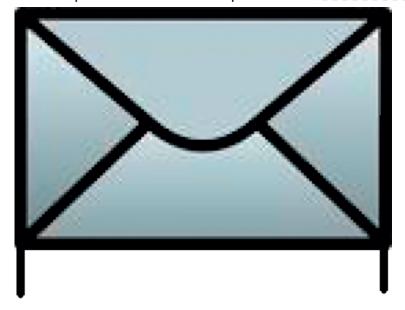
1. The picture of the eraser is about \_\_\_\_\_ centimeters long.



2. The picture of the calculator is about \_\_\_\_\_ centimeters long.



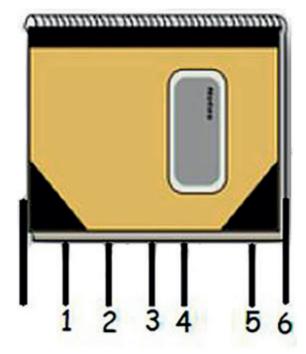
3. The length of the picture of the envelope is about \_\_\_\_\_ centimeters.





4. Jayla measured her puppet's legs to be 23 centimeters long. The stomach is 7 centimeters long, and the neck and head together are 10 centimeters long. What is the total length of the puppet?

5. Elijah begins measuring his math book with his centimeter cube. He marks off where each cube ends. After a few times, he decides this process is taking too long and starts to guess where the cube would end and then mark it.



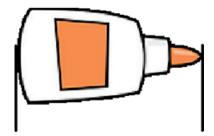
Explain why Elijah's answer will be incorrect.



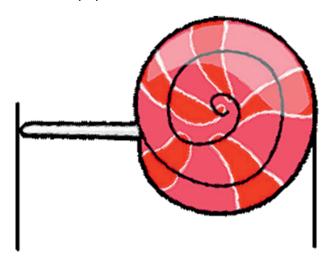
Name	Data
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Use the centimeter square at the bottom of the next page to measure the length of each object. Mark the endpoint of the square as you measure.

1. The picture of the glue is about \_\_\_\_\_ centimeters long.



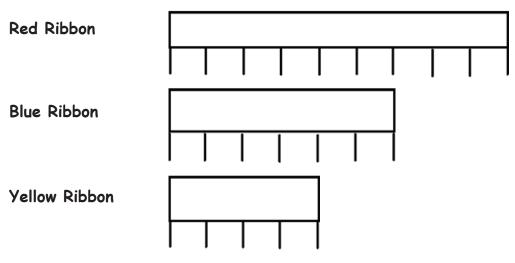
2. The picture of the lollipop is about \_\_\_\_\_ centimeters long.



3. The picture of the scissors is about \_\_\_\_\_ centimeters long.



Lesson 2: Use iteration with one physical unit to measure. 4. Samantha used a centimeter cube and the mark and move forward strategy to measure these ribbons. Use her work to answer the following questions.



- a. How long is the red ribbon? \_\_\_\_\_ centimeters long.
- b. How long is the blue ribbon? \_\_\_\_\_ centimeters long.
- c. How long is the yellow ribbon? \_\_\_\_\_ centimeters long.
- Blue Yellow d. Which ribbon is the longest? Red
- e. Which ribbon is the shortest? Red Blue Yellow
- f. The total length of the ribbons is \_\_\_\_ centimeters.

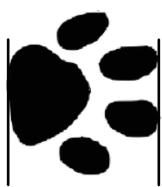
Cut out the centimeter square below to measure the length of the glue bottle, lollipop, and scissors.



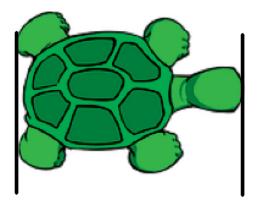
Name	Data
iname	Date

Use your centimeter ruler to measure the length of the objects below.

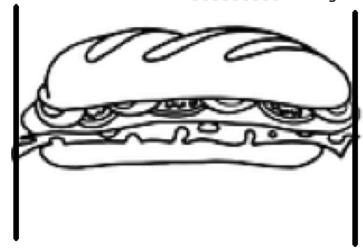
1. The picture of the animal track is about \_\_\_\_\_ cm long.



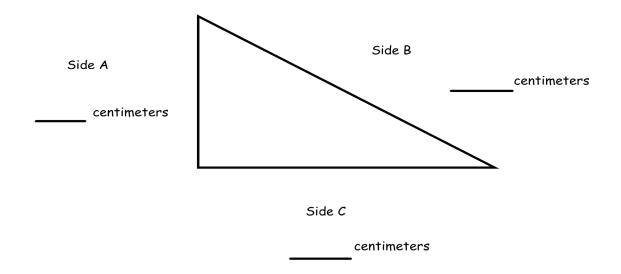
2. The picture of the turtle is about \_\_\_\_ cm long.



3. The picture of the sandwich is about \_\_\_\_ cm long.



4. Measure and label the length of each side of the triangle using your ruler.



a. Which side is the shortest? Side A

Side B

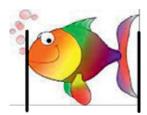
Side C

- b. What is the length of Sides A and B together? \_\_\_\_ centimeters
- c. How much shorter is Side C than Side B? \_\_\_\_\_ centimeters

Name	Data
iname	Date

Measure the lengths of the objects with the centimeter ruler you made in class.

1. The picture of the fish is \_\_\_\_ cm long.



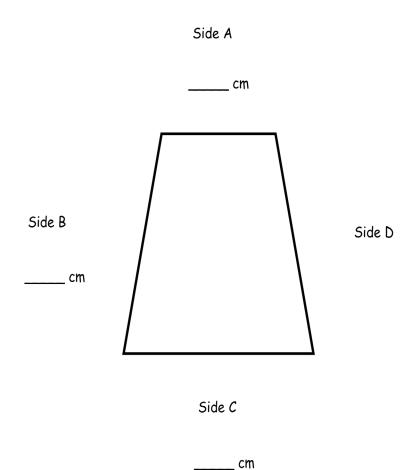
2. The picture of the fish tank is \_\_\_\_\_ cm long.



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3. The picture of the fish tank is \_\_\_\_\_ cm longer than the picture of the fish.

4. Measure the lengths of Sides A, B, and C. Write each length on the line.



- a. Which side is the longest? Side A Side B Side C
- b. How much longer is Side B than Side A? \_\_\_\_ cm longer
- c. How much shorter is Side A than Side C? \_\_\_\_ cm shorter
- d. Sides B and D are the same length.What is the length of Sides B and D together? \_\_\_\_\_ cm
- e. What is the total length of all four sides of this figure? \_\_\_\_\_ cm



Name	Date
	<del>-</del>

1. Measure five things in the classroom with a centimeter ruler. List the five things and their length in centimeters.

Object Name	Length in Centimeters
a.	
b.	
C.	
d.	
e.	

2. Measure four things in the classroom with a meter stick or meter tape. List the four things and their length in meters.

Object Name	Length in Meters
a.	
b.	
c.	
d.	



	ist five things in your house that you would med ape.	asure with a meter stick or meter
a.	·	
b.	)	
c.	•	
d.	I	
e.	2	
	Why would you want to measure those five item: nstead of a centimeter ruler?	s with a meter stick or meter tape
_		

4. The distance from the cafeteria to the gym is 14 meters. The distance from the cafeteria to the playground is double that distance. How many times would you need to use a meter stick to measure the distance from the cafeteria to the playground?



Name		Date	
1.	Circle cm (centimeter) or m (meter) to the length of each object.	o show which unit you would use to measure	
	a. Length of a marker	cm or m	
	b. Length of a school bus	cm or m	
	c. Length of a laptop computer	cm or m	
	d. Length of a highlighter marker	cm or m	
	e. Length of a football field	cm or m	
	f. Length of a parking lot	cm or m	
	g. Length of a cell phone	cm or m	
	h. Length of a lamp	cm or m	
	i. Length of a supermarket	cm or m	

2. Fill in the blanks with cm or m.

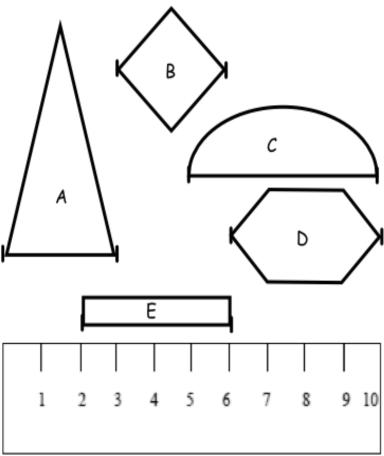
j. Length of a playground

- a. The length of a swimming pool is 25 \_\_\_\_\_.
- b. The height of a house is 8 \_\_\_\_\_.
- c. Karen is 6 \_\_\_\_\_ shorter than her sister.
- d. Eric ran 65 \_\_\_\_\_ down the street.
- e. The length of a pencil box is 3 \_\_\_\_\_ longer than a pencil.



cm or m

3. Use the centimeter ruler to find the length (from one mark to the next) of each object.



a. Triangle A is \_\_\_\_ cm long.

Rhombus B is \_\_\_\_ cm long.

Semicircle C is \_\_\_\_ cm long.

Hexagon D is \_\_\_\_ cm long.

Rectangle E is \_\_\_\_ cm long.

b. Explain how the strategy to find the length of each shape above is different from how you would find the length if you used a centimeter cube.

No	ıme				D	ate	
			_	ach line in centim centimeter ruler	_		
1.							
	a.	Estimate:	cm	b.	Actual leng	th:	_ cm
2.	-						
	a.	Estimate:	cm	b.	Actual leng	th:	_ cm
3.		_					
	a.	Estimate:	cm	b.	Actual leng	th:	_ cm
4.						_	
	a.	Estimate:	cm	b.	Actual leng	th:	_ cm
5.							
	a.	Estimate:	cm	b.	Actual leng	th:	_ cm



6	Cir	cle the correct unit of measurement for each length estimate.
Ο.		The height of a door is about 2 (centimeters/meters) tall.
		What benchmark did you use to estimate?
	b.	The length of a pen is about 10 (centimeters/meters) long.
		What benchmark did you use to estimate?
	c.	The length of a car is about 4 (centimeters/meters) long.
		What benchmark did you use to estimate?
	d.	The length of a bed is about 2 (centimeters/meters) long.
		What benchmark did you use to estimate?
	e.	The length of a dinner plate is about 20 (centimeters/meters) long.
		What benchmark did you use to estimate?
7.	Us	e an unsharpened pencil to estimate the length of 3 things in your desk.
	a.	is about cm long.



b. \_\_\_\_\_ is about \_\_\_\_ cm long.

c. \_\_\_\_\_ is about \_\_\_\_ cm long.

Name	Date	

1. Name five things in your home that you would measure in meters. Estimate their length.

\*Remember, the length from a doorknob to the floor is about 1 meter.

Item	Estimated Length
a.	
b.	
c.	
d.	
e.	

2. Choose the best length estimate for each object.

a. Whiteboard

3 m

or

45 cm

b. Banana

14 cm

or

30 cm

c. DVD

25 cm

or

17 cm

d. Pen

16 cm

or

1 m

e. Swimming pool

50 m

or

150 cm



3. The width of	your	pinky	finger	is	about	1	cm.
-----------------	------	-------	--------	----	-------	---	-----

Measure the length of the lines using your pinky finger. Write your estimate.

a. Line A \_\_\_\_\_

Line A is about \_\_\_\_\_ cm long.

b. Line B \_\_\_\_

Line B is about \_\_\_\_ cm long.

c. Line C

Line C is about \_\_\_\_ cm long.

d. Line D

Line D is about \_\_\_\_\_ cm long.

e. Line E \_\_\_\_\_

Line E is about \_\_\_\_\_ cm long.



Vame	Date
Measure each set of lines in cent comparison sentences.	imeters, and write the length on the line. Complete th
1. Line A	
Line B	_
a. Line A	Line B
cm	cm
b. Line A is about	cm longer than Line B.
2. Line C	
Line D	
a. Line C	Line D
cm	cm
b. Line C is about	cm shorter than Line D.

3	I ine F	: <u></u>		
<b>.</b>				

Line F

Line G

- a. Line E Line F Line G \_ cm \_\_\_ cm \_\_ cm
- b. Lines E, F, and G are about\_\_\_\_ cm combined.
- c. Line E is about \_\_\_\_\_ cm shorter than Line F.
- d. Line G is about\_\_\_\_ cm longer than Line F.
- e. Line F doubled is about \_\_\_\_\_ cm longer than Line G.
- 4. Daniel measured the heights of some young trees in the orchard. He wants to know how many more centimeters are needed to have a height of 1 meter. Fill in the blanks.



5.	Carol's ribbon is 76 centimeters long. Alice's ribbon is 1 meter long. How much longe is Alice's ribbon than Carol's?
6.	The cricket hopped a distance of 52 centimeters. The grasshopper hopped 9 centimeters farther than the cricket. How far did the grasshopper jump?
7.	The pencil box is 24 centimeters in length and 12 centimeters wide. How many more centimeters is the length than the width? more cm



Draw the rectangle and label the sides.

What is the total length of all four sides? \_\_\_\_\_ cm

Name	Date	e	
Measure each set of lines in centin comparison sentences.	meters, and write the length	n on the line.	Complete the
1. Line A			
Line B			
a. Line A is about	_ cm longer than line B.		
b. Line A and B are about _	cm combined.		
2. Line X			
Line Y		_	
Line Z			_
a. Line X	Line Y	Line Z	
cm	cm		cm
b. Lines X, Y, and Z are abo	out cm combined.		
c. Line Z is about	_ cm shorter than Line X.		
d. Line X is about	_ cm shorter than Line Y.		
e. Line Y is about	_ cm longer than Line Z.		



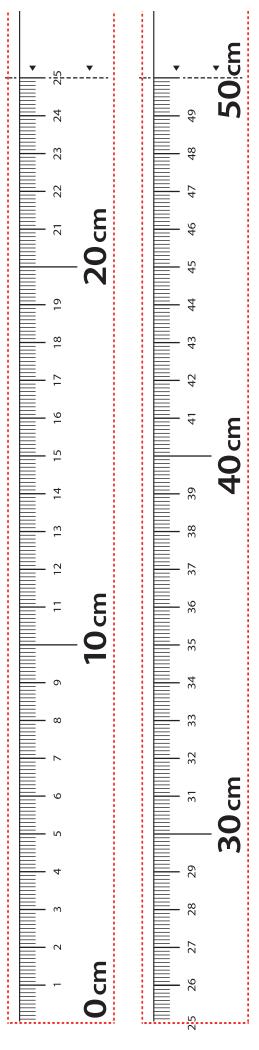
f. Line X doubled is about \_\_\_\_ cm longer than line Y.

		-
	a. Line J is cm shorter than line K.	
	b. Line L is cm longer than line K.	
	c. Line J doubled is cm more than line	L.
	d. Lines J, K, and L combined are cm.	
4.	Katie measured the seat height of four different results:	chairs in her house. Here are her
	Loveseat height: 51 cm Dining room chair height: 55 cm	Highchair height: 97 cm Counter stool height: 65 cm

3. Line J is 60 cm long. Line K is 85 cm long. Line L is 1 m long.

- a. How much shorter is the dining room chair than the counter stool? \_\_\_\_\_ cm
- b. How much taller is a meter stick than the counter stool? \_\_\_\_ cm
- c. How much taller is a meter stick than the loveseat? \_\_\_\_ cm
- 5. Max ran 15 meters this morning. This afternoon, he ran 48 meters.
  - a. How many more meters did he run in the afternoon?
  - b. How many meters did Max run in all?









LEGEND

N	ame	Date
	leasure each set of lines with one small paper clip, usin leasure each set of lines in centimeters using a ruler.	g mark and move forward.
1.	Line A	-
	Line B	
	a. Line A	
	b. Line B	
	paper clips cm	
	c. Line B is about paper clips shorter than Li	ne A.
	d. Line A is about cm longer than Line B.	
2.		- Line L
	Line M	
	a. Line L	
	paper clips cm b. Line M	
	paper clips cm	
	c. Line L is about paper clips longer than Line	. M.
	d. Line M doubled is about cm shorter than L	ine L.



3. Draw a line that is 6 cm long and another line below it that is 15 cm long. Label the 6 cm line C and the 15 cm line D.

a. Line C

Line D

\_\_\_\_ paper clips

\_\_\_ paper clips

b. Line D is about  $\underline{\hspace{1cm}}$  cm longer than Line C.

c. Line C is about \_\_\_\_\_ paper clips shorter than Line D.

d. Lines C and D together are about \_\_\_\_\_ paper clips long.

e. Lines C and D together are about \_\_\_\_ centimeters long.

4. Christina measured Line F with quarters and Line G with pennies.



Line G

Line F



Line F is about 6 quarters long. Line G is about 8 pennies long. Christina said Line G is longer because 8 is a bigger number than 6.

Explain why Christina is incorrect.

Vame	Date
Jse a	centimeter ruler and paper clips to measure and compare lengths.
1. —	Line Z
a.	Line Z
	paper clips cm
b.	Line Z doubled would measure about paper clips or about cm long.
2. <b>—</b>	Line A
	Line B
α.	Line A paper clips cm
b.	Line B cm
c.	Line A is about paper clips longer than Line B.
d.	Line B doubled is about cm shorter than Line A.



3.	Draw a	line	that	is	9	cm	long	and	another	line	below	it	that	is	12	cm	long	١.

Label the 9 cm line F and the 12 cm line G.

α.	Line F	Line G
	paper clips	paper clips

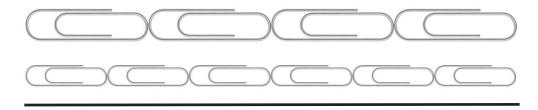
b. Line G is about \_\_\_\_ cm longer than Line F.

c. Line F is about \_\_\_\_\_ paper clips shorter than Line G.

d. Lines F and G are about \_\_\_\_\_ paper clips long.

e. Lines F and G are about \_\_\_\_ centimeters long

4. Jordan measured the length of a line with large paper clips. His friend measured the length of the same line with small paper clips.



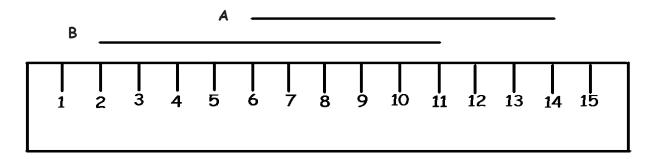
a. About how many paper clips did Jordan use? \_\_\_\_\_ large paper clips

b. About how many small paper clips did his friend use? \_\_\_\_\_ small paper clips

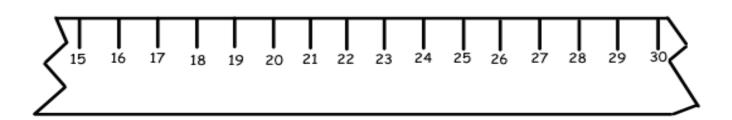
c. Why did Jordan's friend need more paper clips to measure the same line as Jordan?

Name \_\_\_\_\_ Date \_\_\_\_

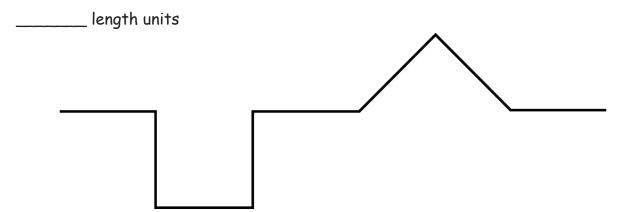
1.



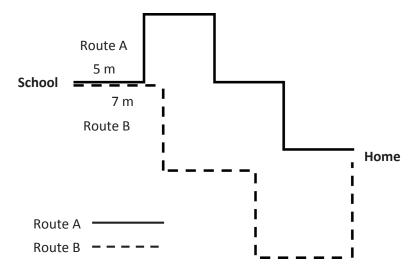
- a. Line A is \_\_\_\_ cm long.
- b. Line B is \_\_\_\_ cm long.
- c. Together, Lines A and B measure \_\_\_\_ cm.
- d. Line A is \_\_\_\_ cm (longer/shorter) than Line B.
- 2. A cricket jumped 5 centimeters forward and 9 centimeters back, and then stopped. If the cricket started at 23 on the ruler, where did the cricket stop? Show your work on the broken centimeter ruler.



3. Each of the parts of the path below is 4 length units. What is the total length of the path?



4. Ben took two different ways home from school to see which way was the quickest. All streets on Route A are the same length. All streets on Route B are the same length.

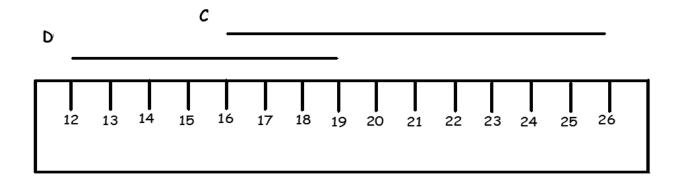


- a. How many meters is Route A? \_\_\_\_\_ m
- b. How many meters is Route B? \_\_\_\_\_ m
- c. What is the difference between Route A and Route B? \_\_\_\_\_ m

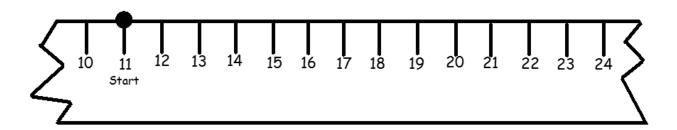


Name \_\_\_\_\_ Date \_\_\_\_

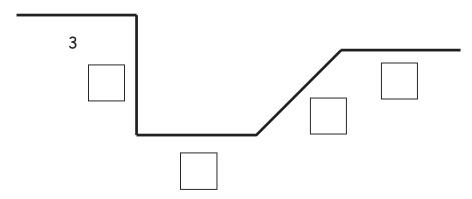
1.



- a. Line C is \_\_\_\_ cm.
- b. Line D is \_\_\_\_ cm.
- c. Lines C and D are \_\_\_\_ cm.
- d. Line C is \_\_\_\_ cm (longer/shorter) than Line D.
- 2. An ant walked 12 centimeters to the right on the ruler and then turned around and walked 5 centimeters to the left. His starting point is marked on the ruler. Where is the ant now? Show your work on the broken ruler.



3. All of the parts of the path below are equal length units.



- a. Fill in the empty boxes with the lengths of each side.
- b. The path is \_\_\_\_\_ length units long.
- c. How many more parts would you need to add for the path to be 21 length units long?\_\_\_\_\_ parts
- 4. The length of a picture is 67 centimeters. The width of the picture is 40 centimeters. How many more centimeters is the length than the width?



Name	Date

1. Complete the chart by first estimating the measurement around a classmate's body part and then finding the actual measurement with a meter strip.

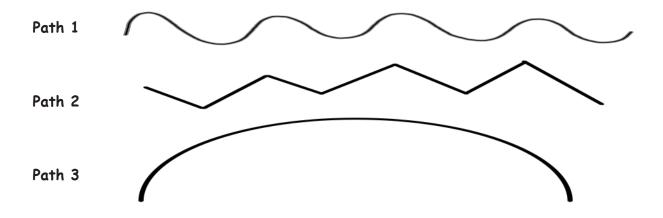
Student Name	Body Part Measured	Estimated Measurement in Centimeters	Actual Measurement in Centimeters
	Neck		
	Wrist		
	Head		

a.	Which was longer, your estimate or the actual measurement around your
	classmate's head?

b.	Draw a to	ape o	diagram	to	compare	the	lengths	of	two	different	body	parts.
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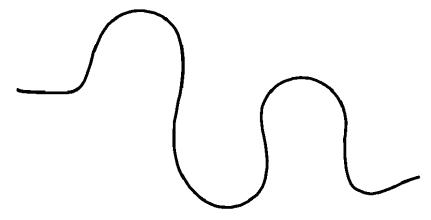


2. Use a string to measure all three paths.



- a. Which path is the longest?
- b. Which path in the shortest?
- c. Draw a tape diagram to compare two of the lengths.

3. Estimate the length of the path below in centimeters.



a. The path is about \_\_\_\_ cm long.

Use your piece of string to measure the length of the path. Then, measure the string with your meter strip.

- b. The actual length of the path is \_\_\_\_\_ cm.
- c. Draw a tape diagram to compare your estimate and the actual length of the path.



Name	Date	

1. Mia completed the chart by first estimating the measurement around three objects in her house and then finding the actual measurement with her meter strip.

Object Name	Estimated Measurement in Centimeters	Actual Measurement in Centimeters		
Orange	40 cm	36 cm		
Mini Basketball	30 cm	41 cm		
Bottom of a glue bottle	10 cm	8 cm		

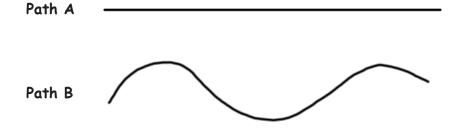
a.	What is the	difference	between the	longest	and shortest	measurements?
		cm				

b.	Draw a tape diagram	comparing t	the measurement	s of the	: orange al	nd the	bottom
	of the glue bottle.						

c. Draw a tape diagram comparing the measurements of the basketball and the bottom of the glue bottle.



2. Measure the two paths below with your meter strip and string.



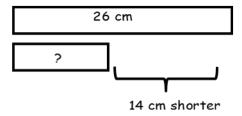
- a. Path A is \_\_\_\_\_ cm long.
- b. Path B is \_\_\_\_\_ cm long.
- c. Together, Paths A and B measure \_\_\_\_ cm.
- d. Path A is \_\_\_\_\_ cm (shorter/longer) than Path B.
- 3. Shawn and Steven had a contest to see who could jump farther. Shawn jumped 75 centimeters. Steven jumped 9 more centimeters than Shawn.
  - a. How far did Steven jump? \_\_\_\_\_ centimeters
  - b. Who won the jumping contest? \_\_\_\_\_
  - c. Draw a tape diagram to compare the lengths that Shawn and Steven jump.

Name	Date

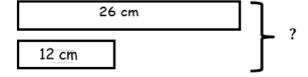
Use the RDW process to solve. Draw a tape diagram for each step. Problem 1 has been started for you.

1. Maura's ribbon is 26 cm long. Colleen's ribbon is 14 cm shorter than Maura's ribbon. What is the total length of both ribbons?

Step 1: Find the length of Colleen's ribbon.



Step 2: Find the length of both ribbons.





2.	Jesse's	tower	of blo	cks is	30 cm	tall.	Sarah's	tower	is 9	cm	shorter	than	Jessie's
	tower.	What	is the	total k	neight	of b	oth towe	rs?					

Step 1: Find the height of Sarah's tower.

Step 2: Find the height of both towers.

- 3. Pam and Mark measured the distance around each other's wrists. Pam's wrist measured 10 cm. Mark's wrist measured 3 cm more than Pam's. What is the total length around all four of their wrists?
  - Step 1: Find the distance around both Mark's wrists.

Step 2: Find the total measurement of all four wrists.

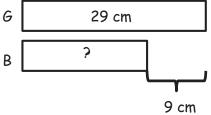


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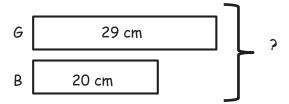
Use the RDW process to solve. Draw a tape diagram for each step. Problem 1 has been started for you.

1. There is 29 cm of green ribbon. A blue ribbon is 9 cm shorter than the green ribbon. How long is the blue ribbon?

Step 1: Find the length of blue ribbon.

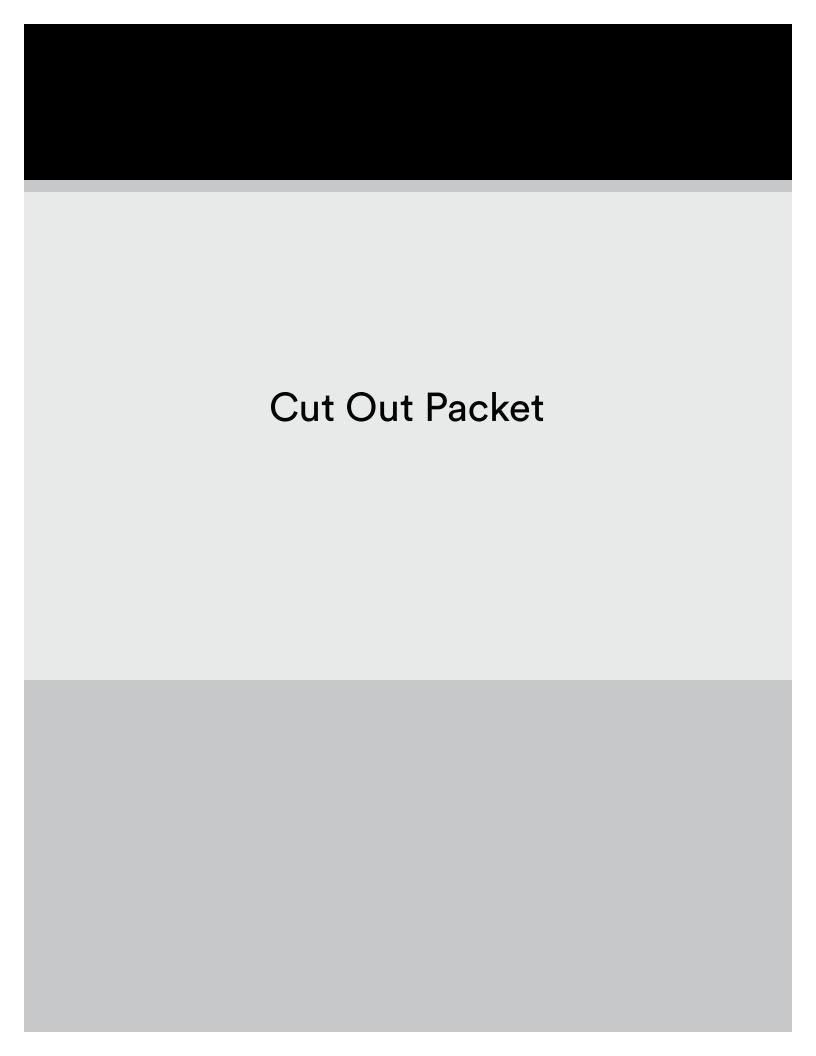


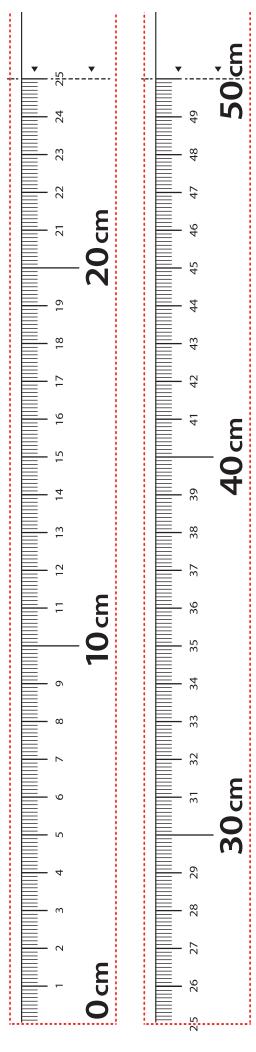
Step 2: Find the length of both the blue and green ribbons.



- 2. Joanna and Lisa drew lines. Joanna's line is 41 cm long. Lisa's line is 19 cm longer than Joanna's. How long are Joanna's and Lisa's lines?
  - Step 1: Find the length of Lisa's line.
  - Step 2: Find the total length of their lines.











meter strip

TUD ....

LEGEND