A Story of Units®

Eureka Math™

Grade 2, Module 2

Student File_A

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

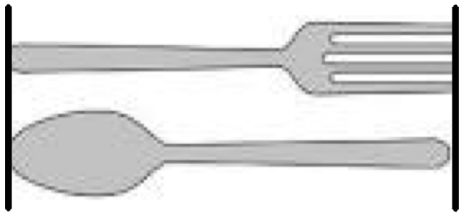
Published by the non-profit Great Minds.

Printed in the U.S.A.
This book may be purchased from the publisher at eureka-math.org
10 9 8 7 6 5 4 3 2 1

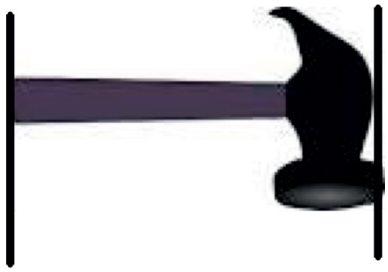
Name _____ Date _____

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?

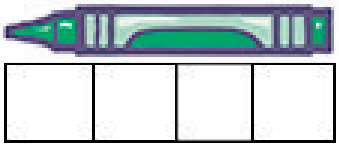
6. The length of a screwdriver is 19 centimeters. The handle is 5 centimeters long.

   a. What is the length of the top of the screwdriver?

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

Name _____ Date _____

Count each centimeter cube to find the length of each object.

1. 

The crayon is _____ centimeter cubes long.

2. 

The pencil is _____ centimeter cubes long.

3. 

The clothespin is _____ centimeter cubes long.

4. 

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?

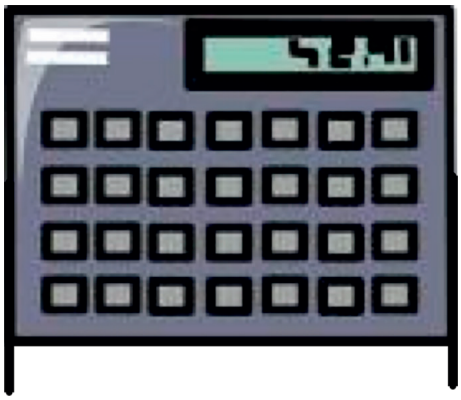
7. The length of Jimmy's math book is 17 centimeter cubes. His reading book is 12 centimeter cubes longer. What is the length of his reading book?

Name _____ Date _____

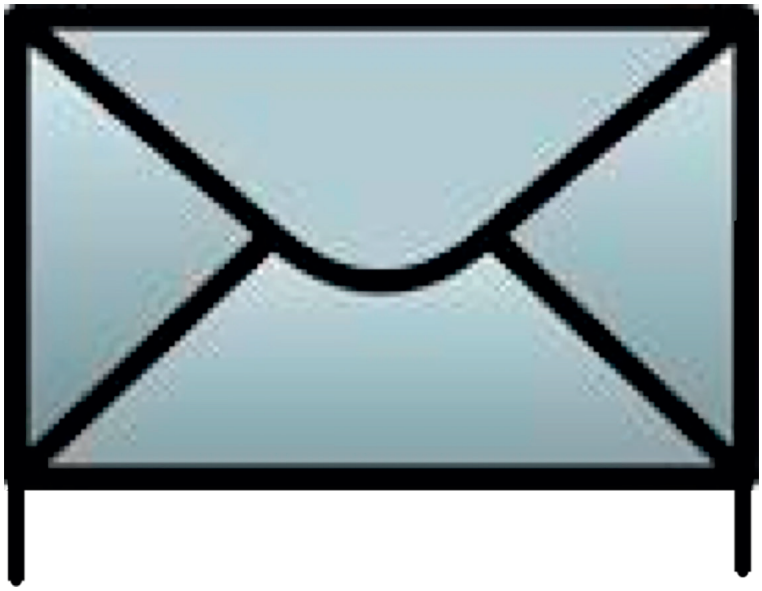
Find the length of each object using one centimeter cube. Mark the endpoint of each centimeter cube as you measure.

1. The picture of the eraser is about _____ centimeters long.

2. The picture of the calculator is about _____ centimeters long.

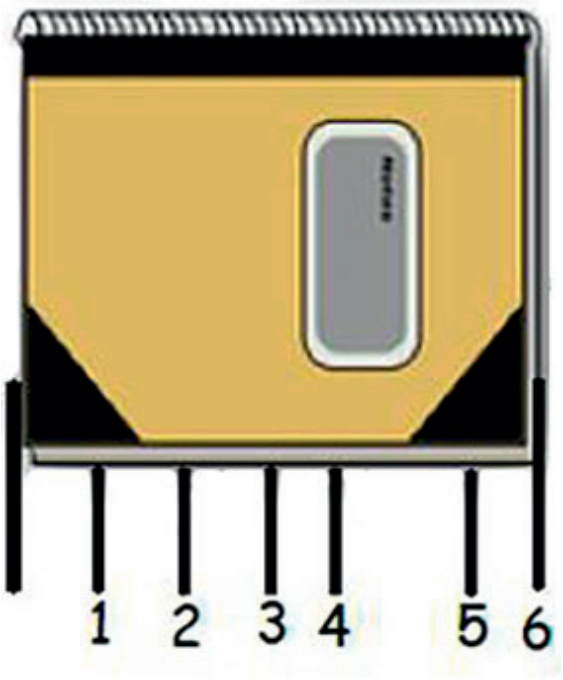


3. The length of the picture of the envelope is about _____ centimeters.



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.

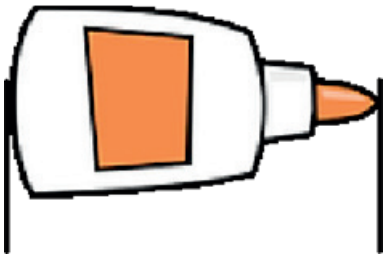
_____

_____

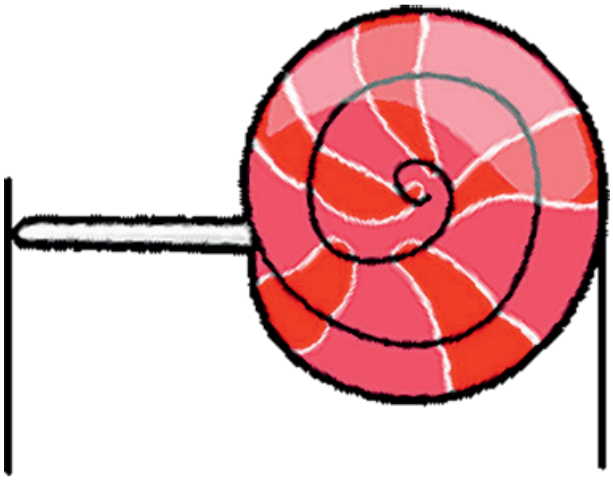
Name _____ Date _____

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.

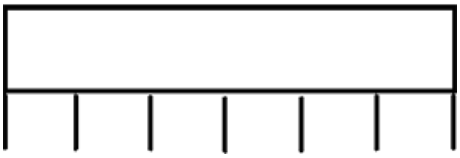


3. The picture of the scissors is about _____ centimeters long.

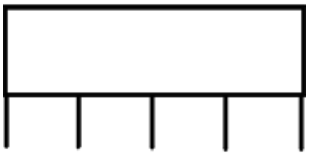
4. Samantha used a centimeter cube and the mark and move forward strategy to measure these ribbons. Use her work to answer the following questions.

Red Ribbon

Blue Ribbon



Yellow Ribbon



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.

d. Which ribbon is the longest? Red Blue Yellow

e. Which ribbon is the shortest? Red Blue Yellow

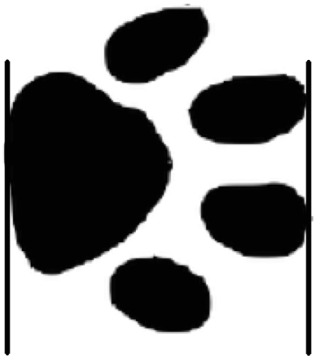
f. The total length of the ribbons is _____ centimeters.

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

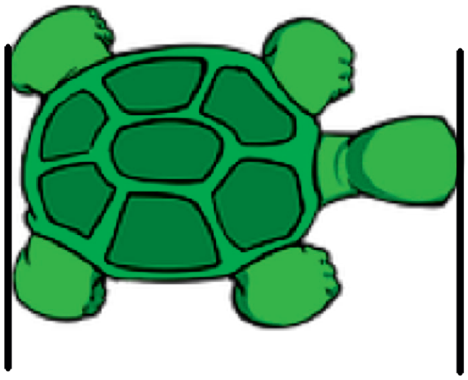
Name _____ Date _____

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

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

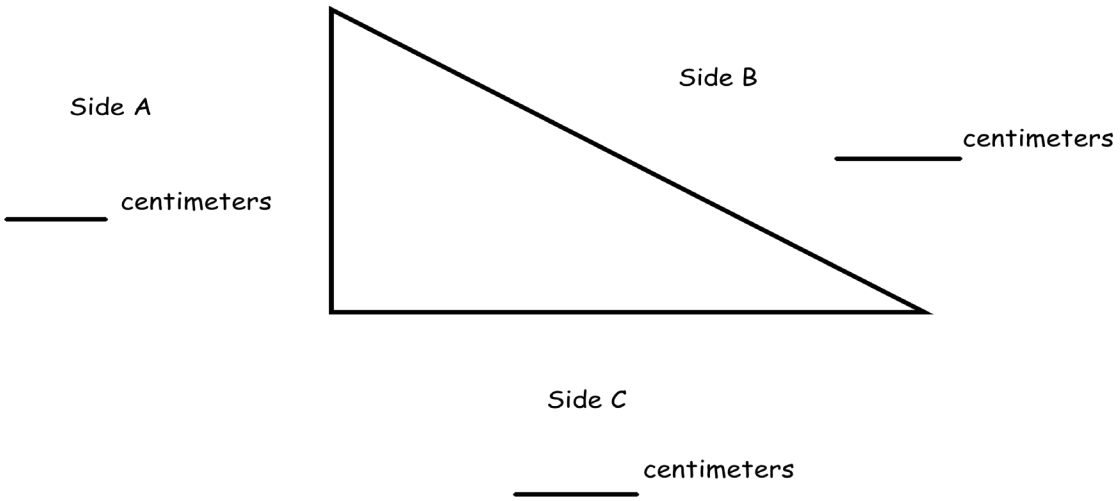


2. The picture of the turtle is about _____ cm long.



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

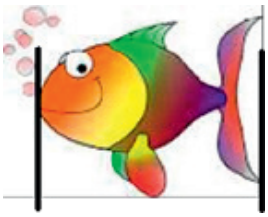
b. What is the length of Sides A and B together? _____ centimeters

c. How much shorter is Side C than Side B? _____ centimeters

Name _____ Date _____

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

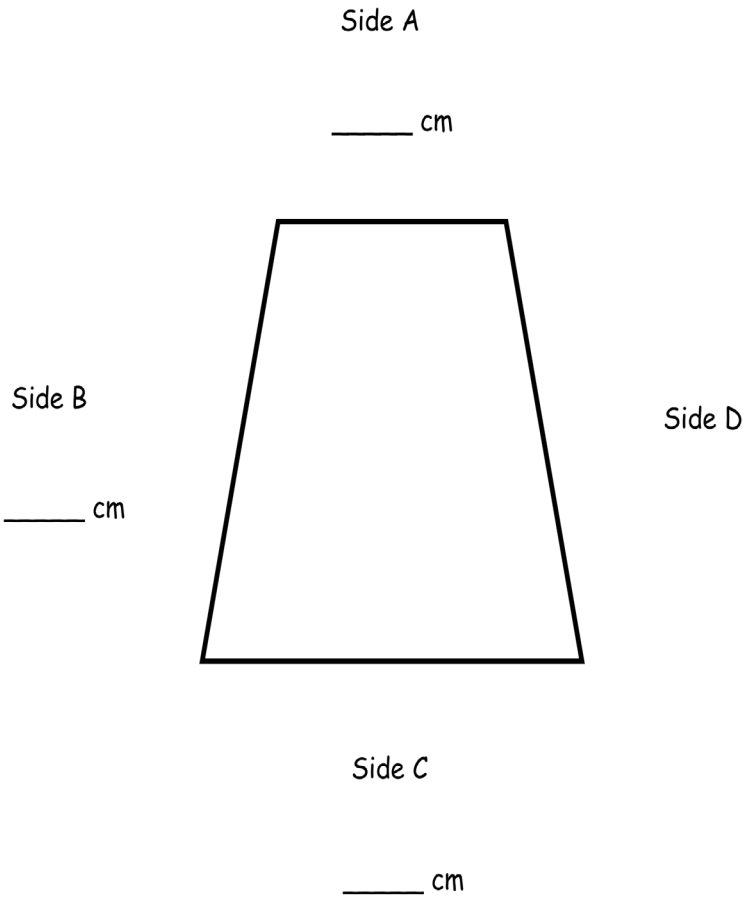
1. The picture of the fish is ____ cm long.



2. The picture of the fish tank is _____ cm long.

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 _____

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.	

3. List five things in your house that you would measure with a meter stick or meter tape.

   a. _____

   b. _____

   c. _____

   d. _____

   e. _____

   Why would you want to measure those five items with a meter stick or meter tape instead of a centimeter ruler?

   _____

   _____

   _____

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 show which unit you would use to measure the length of each object.

   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

   j. Length of a playground cm or m

2. Fill in the blanks with **cm** or **m**.

   a. The length of a swimming pool is 25 _____.

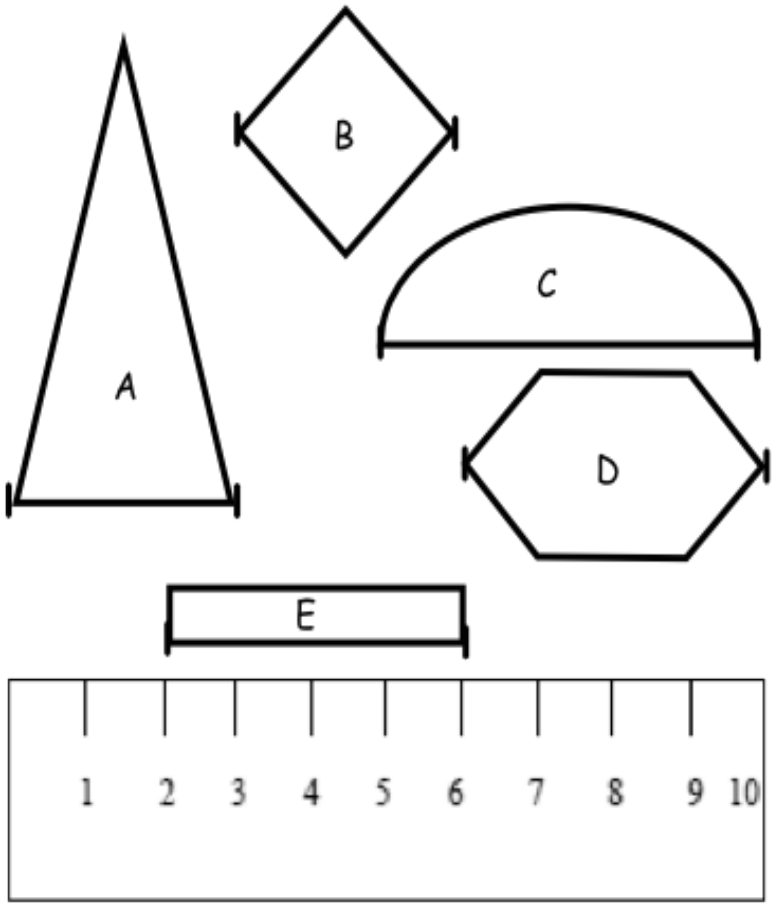
   b. The height of a house is 8 _____.

   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.

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.

_____

_____

_____

Name _____ Date _____

First, estimate the length of each line in centimeters using mental benchmarks. Then, measure each line with a centimeter ruler to find the actual length.

1.

a. Estimate: _____ cm b. Actual length: _____ cm

2.

a. Estimate: _____ cm b. Actual length: _____ cm

3.

a. Estimate: _____ cm b. Actual length: _____ cm

4.

a. Estimate: _____ cm b. Actual length: _____ cm

5.

a. Estimate: _____ cm b. Actual length: _____ cm

6. Circle the correct unit of measurement for each length estimate.

   a. 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. Use 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.

Name _____ Date _____

Measure each set of lines in centimeters, and write the length on the line. Complete the comparison sentences.

1. Line A _____

   Line B _____

   a. Line A _____ cm Line B _____ cm

   b. Line A is about _____ cm longer than Line B.

2. Line C _____

   Line D _____

   a. Line C _____ cm Line D _____ cm

   b. Line C is about _____ cm shorter than Line D.

3. Line E

   Line F

   Line G

   a. Line E _____ cm Line F _____ cm Line G _____ 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.

   a. 90 cm + _____ cm = 1 m

   b. 80 cm + _____ cm = 1 m

   c. 85 cm + _____ cm = 1 m

   d. 81 cm + _____ cm = 1 m

5. Carol's ribbon is 76 centimeters long. Alice's ribbon is 1 meter long. How much longer 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 _____

Measure each set of lines in centimeters, and write the length on the line. Complete the comparison sentences.

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 about_____ 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.

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

   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 chairs in her house. Here are her results:

   Loveseat height: 51 cm
   Dining room chair height: 55 cm
   Highchair height: 97 cm
   Counter stool height: 65 cm

   a. How much shorter is the dining room chair than the counter stool? _____ cm

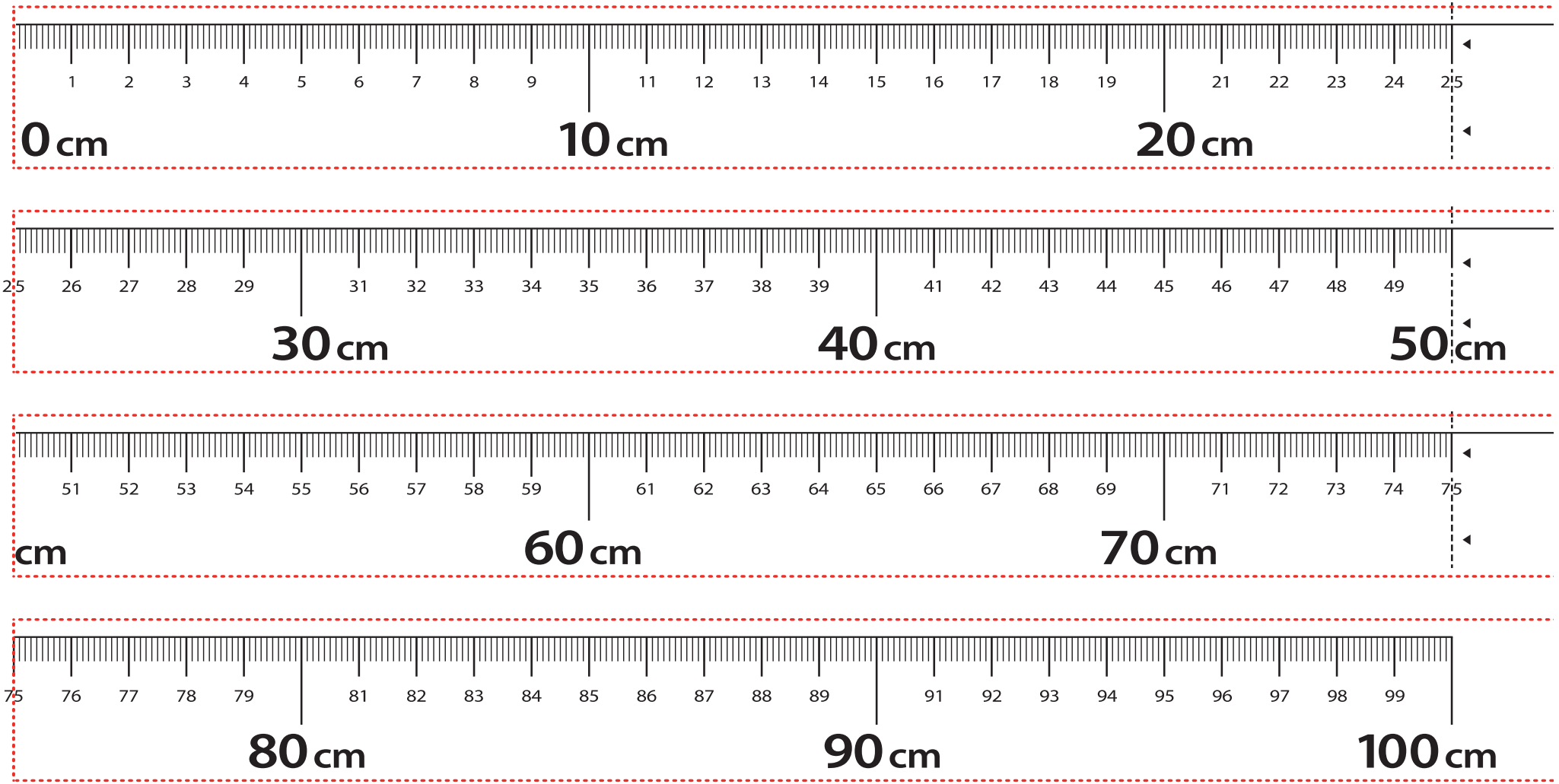
   b. How much taller is a meter stick than the counter stool? _____ cm

   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?



meter strip

LEGEND ------ CUT – – – – ALIGN EDGE

Name _____ Date _____

Measure each set of lines with one small paper clip, using mark and move forward. Measure each set of lines in centimeters using a ruler.

1. Line A _____

   Line B _____

   a. Line A

      _____ paper clips _____ cm

   b. Line B

      _____ paper clips _____ cm

   c. Line B is about _____ paper clips shorter than Line 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 Line 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 _____ paper clips

      Line D _____ paper clips

   b. Line D is about _____ 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 F 

   Line G 

   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.

   _____

   _____

Name _____ Date _____

Use 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. _____ Line A

_____ Line B

a. Line A

_____ paper clips _____ cm

b. Line B

_____ paper clips _____ 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.

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

   a. Line F _____ paper clips

      Line G _____ paper clips

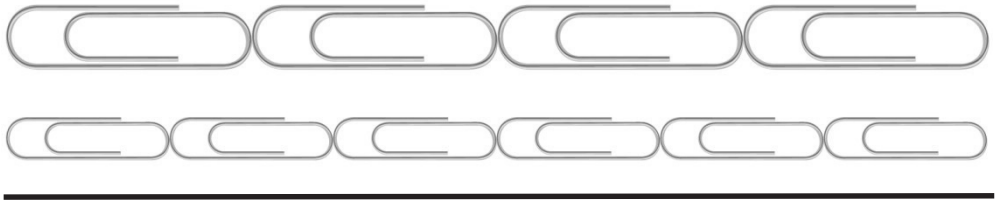
   b. Line G is about _____ cm longer than Line F.

   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

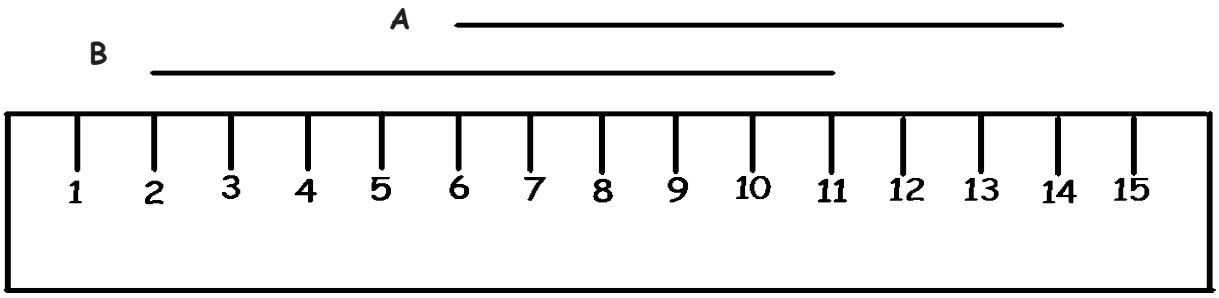
   c. Why did Jordan's friend need more paper clips to measure the same line as Jordan?

      _____

      _____

Name _____ Date _____

1.



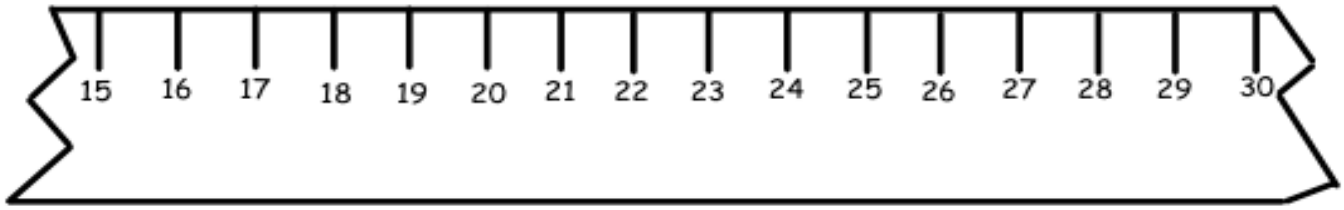
a. Line A is _____ cm long.

b. Line B is _____ cm long.

c. Together, Lines A and B measure _____ cm.

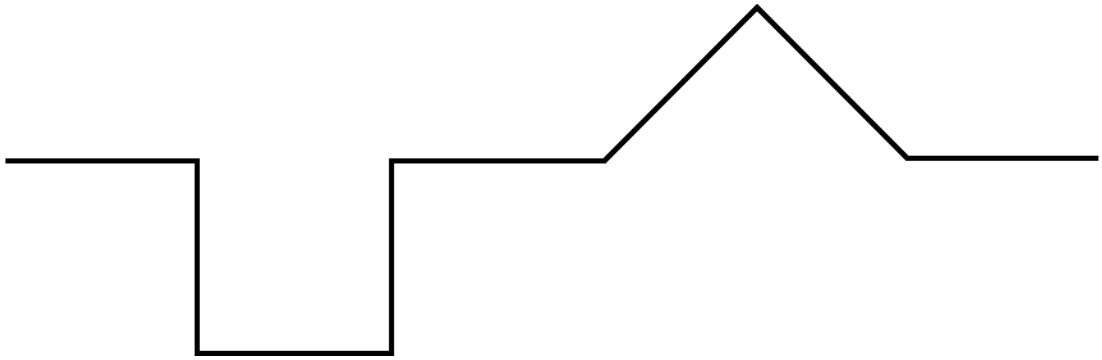
d. Line A is _____ cm (longer/shorter) than Line B.

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.

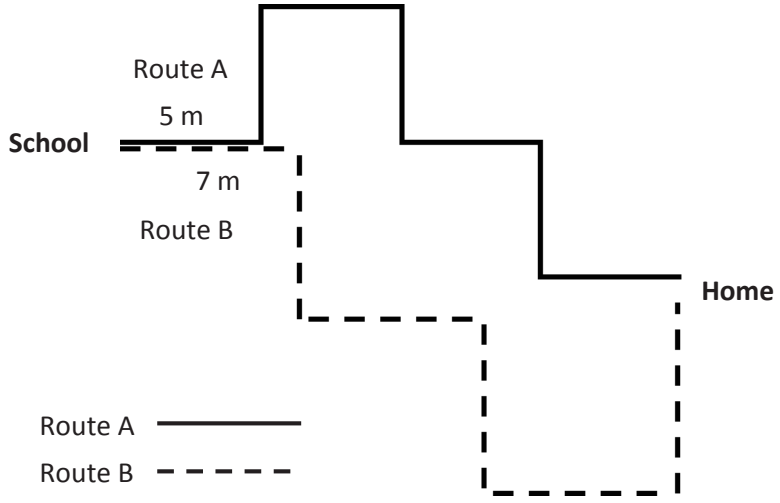


3. Each of the parts of the path below is 4 length units. What is the total length of the path?

_____ length units



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.



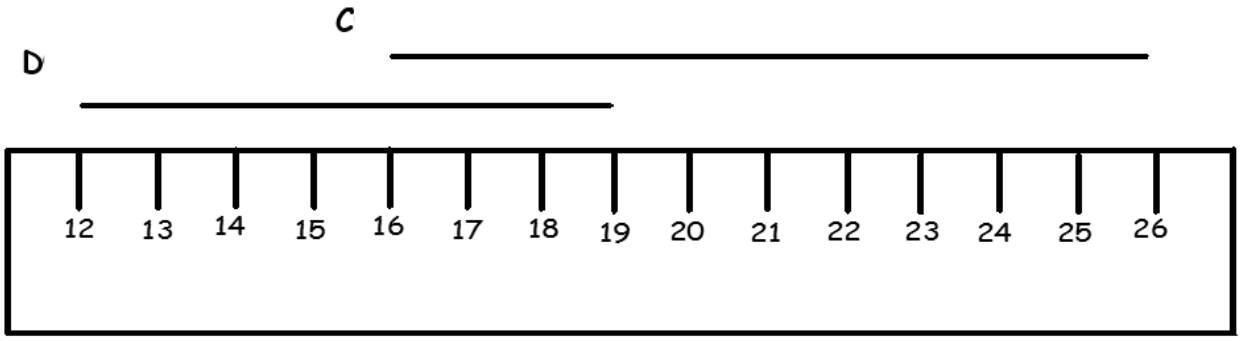
a. How many meters is Route A? _____ m

b. How many meters is Route B? _____ m

c. What is the difference between Route A and Route B? _____ m

Name _____ Date _____

1.



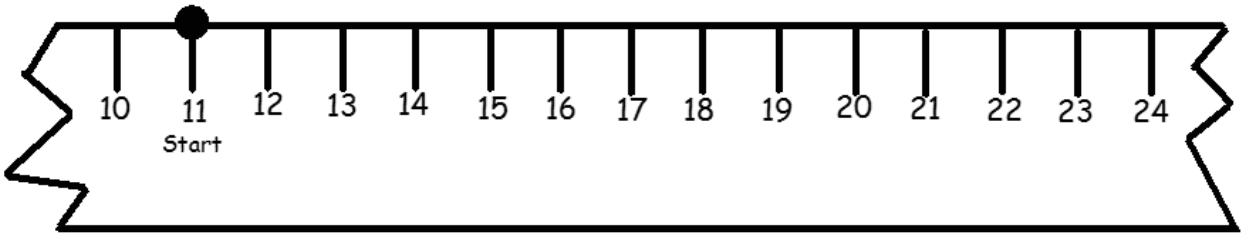
a. Line C is _____ cm.

b. Line D is _____ cm.

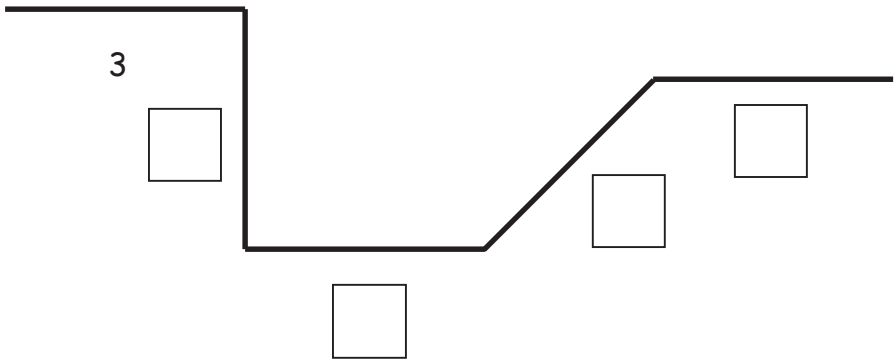
c. Lines C and D are _____ cm.

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 _____

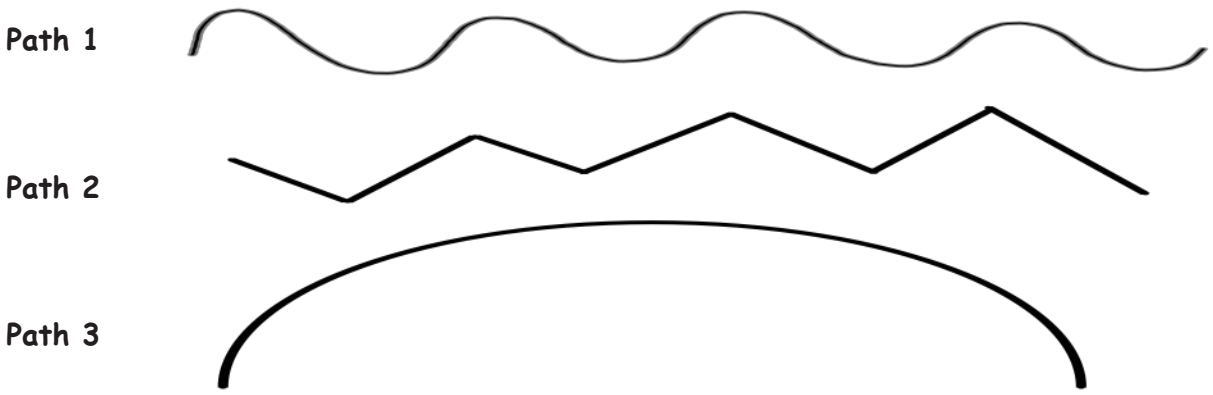
1. Complete the chart by first estimating the measurement around a classmate's body part and then finding the actual measurement with a meter strip.

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 tape diagram to compare the lengths of two different body parts.

2. Use a string to measure all three paths.

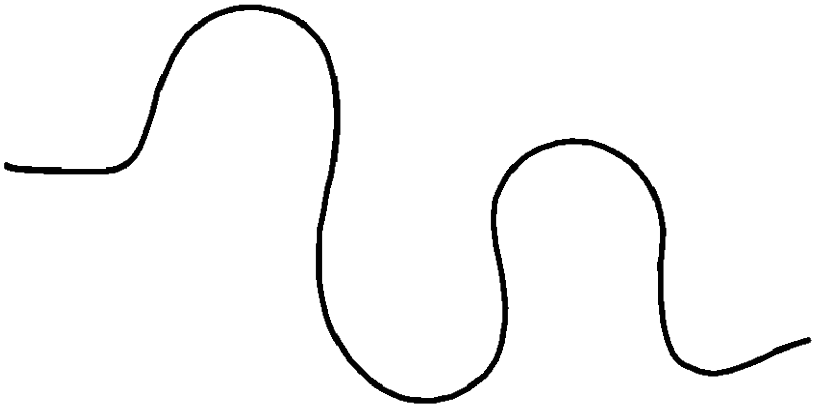


a. Which path is the longest? _____

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 the measurements of the orange and 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.

Path A

Path B

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? _____

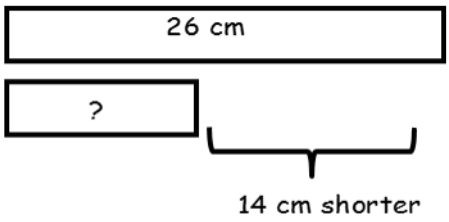
c. Draw a tape diagram to compare the lengths that Shawn and Steven jump.

Name _____ Date _____

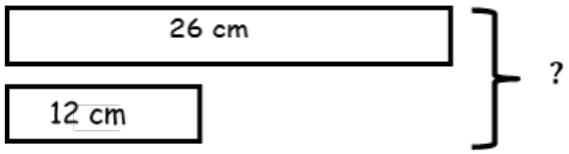
Use the RDW process to solve. Draw a tape diagram for each step. Problem 1 has been started for you.

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 blocks is 30 cm tall. Sarah's tower is 9 cm shorter than Jessie's tower. What is the total height of both towers?

   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.

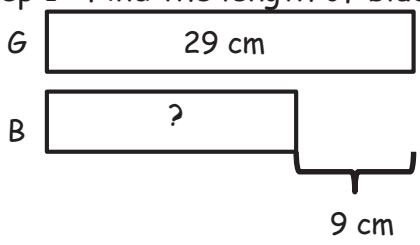
   Step 2: Find the total measurement of all four wrists.

Name _____ Date _____

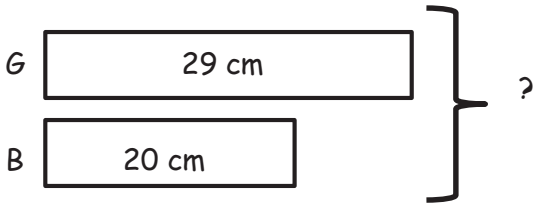
Use the RDW process to solve. Draw a tape diagram for each step. Problem 1 has been started for you.

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.

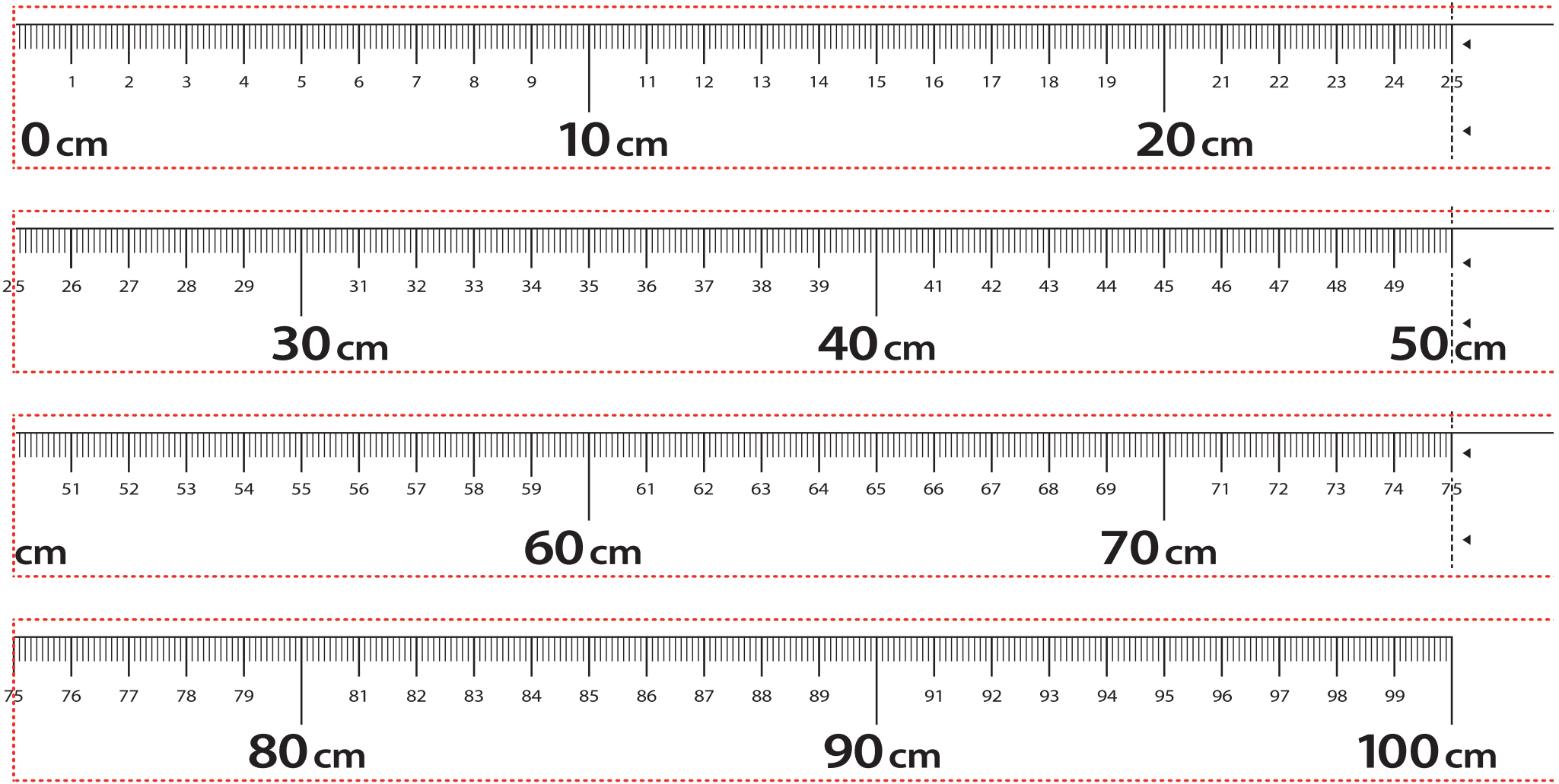


2. Joanna and Lisa drew lines. Joanna's line is 41 cm long. Lisa's line is 19 cm longer than Joanna's. How long are Joanna's and Lisa's lines?

   Step 1: Find the length of Lisa's line.

   Step 2: Find the total length of their lines.

Cut Out Packet



meter strip

LEGEND CUT ALIGN EDGE