



A STORY OF UNITS



## Mathematics Curriculum



### Grade 2 • MODULE 2

Addition and Subtraction of Length Units

# Homework

---

---

Info for parents: <http://bit.ly/eureka2>

Video tutorials: <http://embarc.online>

Version 3



## Table of Contents

**GRADE 2 • MODULE 2**

## Addition and Subtraction of Length Units

<b>Module Overview .....</b>	<b>i</b>
Topic A: Understand Concepts About the Ruler .....	2.A.1
Topic B: Measure and Estimate Length Using Different Measurement Tools.....	2.B.1
Topic C: Measure and Compare Lengths Using Different Length Units .....	2.C.1
Topic D: Relate Addition and Subtraction to Length .....	2.D.1
<b>Module Assessments .....</b>	<b>2.S.1</b>

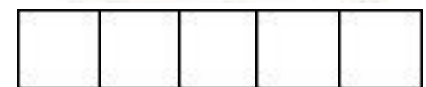
Name \_\_\_\_\_

Date \_\_\_\_\_

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



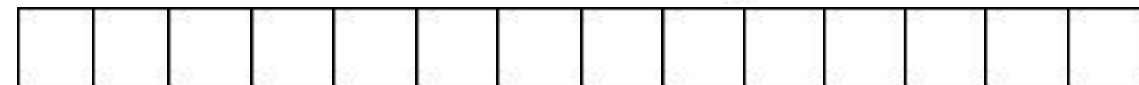
1. The crayon is \_\_\_\_\_ centimeter cubes long.



2. The pencil is \_\_\_\_\_ centimeter cubes long.



3. The clothespin is \_\_\_\_\_ centimeter cubes long.



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

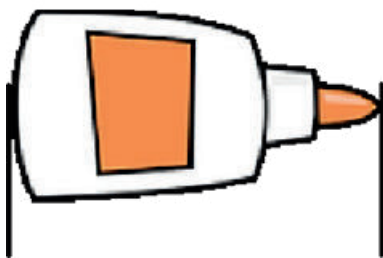
5. Richard has 43 centimeter cubes. Henry has 30 centimeter cubes. What is the length of their cubes altogether?
6. The length of Marisa's loaf of bread is 54 centimeters. She cut off and ate 7 centimeters of bread. What is the length of what she has left?
7. The length of Jimmy's math book is 17 centimeter cubes. His reading book is 12 centimeter cubes longer. What is the length of his reading book?

Name \_\_\_\_\_

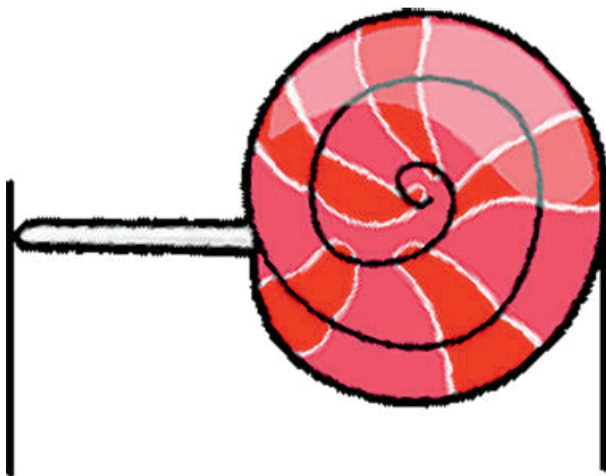
Date \_\_\_\_\_

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.

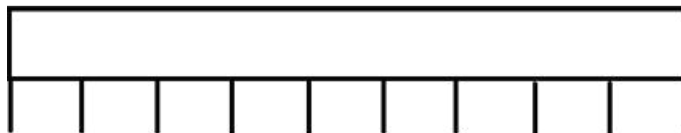


3. The picture of the scissors is about \_\_\_\_\_ centimeters long.

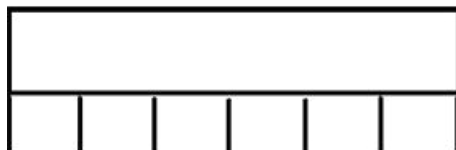


4. Samantha used a centimeter cube and the mark and move forward strategy to measure these ribbons. Use her work to answer the following questions.

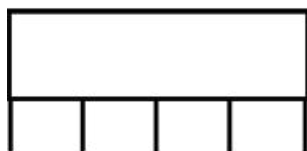
Red Ribbon



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.

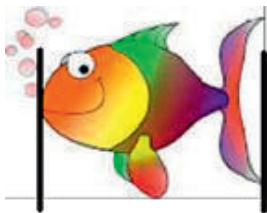


Name \_\_\_\_\_

Date \_\_\_\_\_

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

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



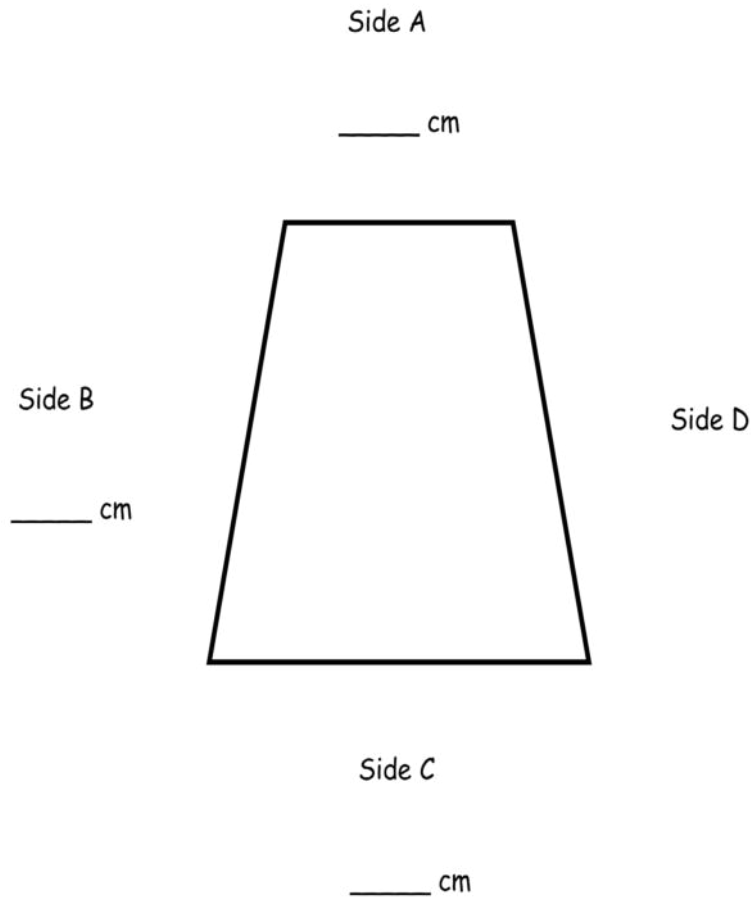
2. The picture of the fish tank is \_\_\_\_\_ cm long.



© ciroorabona - Fotolia.com

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. 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 \_\_\_\_\_.

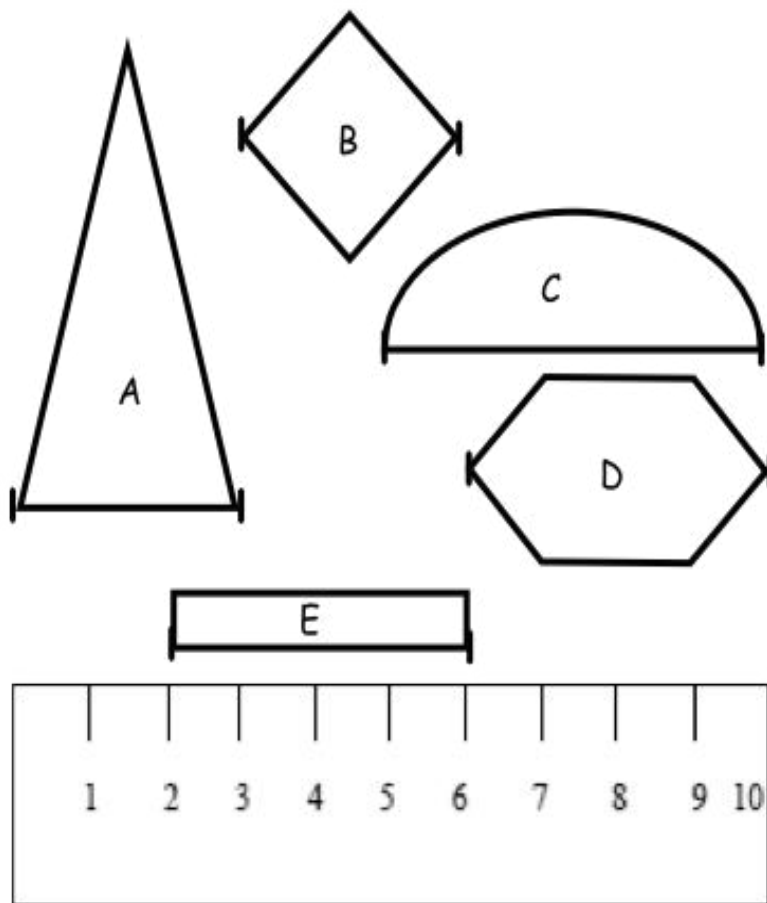
b. The height of a house is 8 \_\_\_\_\_.

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 \_\_\_\_\_

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 \_\_\_\_\_

- Line A is about \_\_\_\_\_ cm longer than line B.
- Line A and B are about \_\_\_\_\_ cm combined.

2. Line X \_\_\_\_\_

Line Y \_\_\_\_\_

Line Z \_\_\_\_\_

- |          |          |          |
|----------|----------|----------|
| Line X   | Line Y   | Line Z   |
| _____ cm | _____ cm | _____ cm |
- Lines X, Y, and Z are about \_\_\_\_\_ cm combined.
- Line Z is about \_\_\_\_\_ cm shorter than Line X.
- Line X is about \_\_\_\_\_ cm shorter than Line Y.
- Line Y is about \_\_\_\_\_ cm longer than Line Z.
- 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.
- Line J is \_\_\_\_\_ cm shorter than line K.
  - Line L is \_\_\_\_\_ cm longer than line K.
  - Line J doubled is \_\_\_\_\_ cm more than line L.
  - 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          | Highchair height: 97 cm     |
| Dining room chair height: 55 cm | Counter stool height: 65 cm |
- How much shorter is the dining room chair than the counter stool? \_\_\_\_\_ cm
  - How much taller is a meter stick than the counter stool? \_\_\_\_\_ cm
  - How much taller is a meter stick than the loveseat? \_\_\_\_\_ cm
5. Max ran 15 meters this morning. This afternoon, he ran 48 meters.
- How many more meters did he run in the afternoon?
  - How many meters did Max run in all?

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

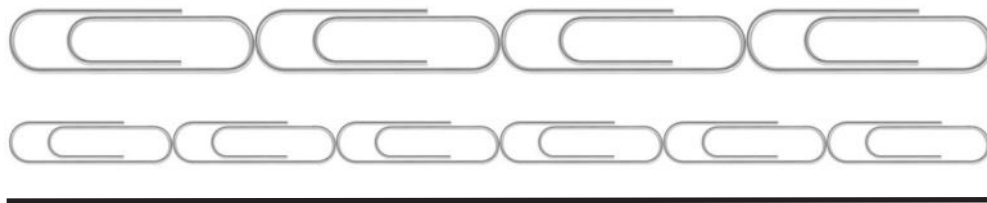
c. Line A is about \_\_\_\_\_ paper clips longer than Line B.

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?

---

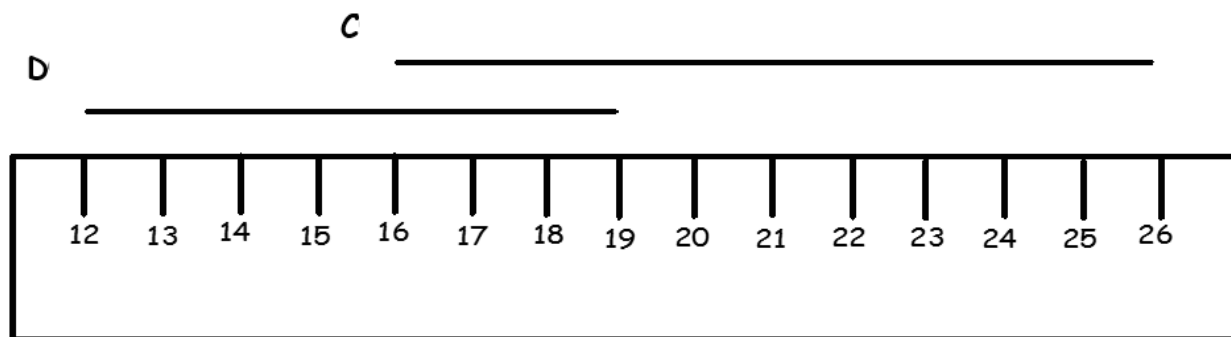
---



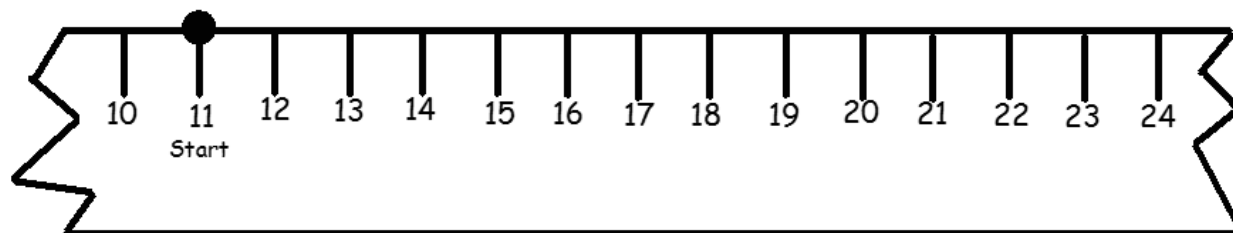
Name \_\_\_\_\_

Date \_\_\_\_\_

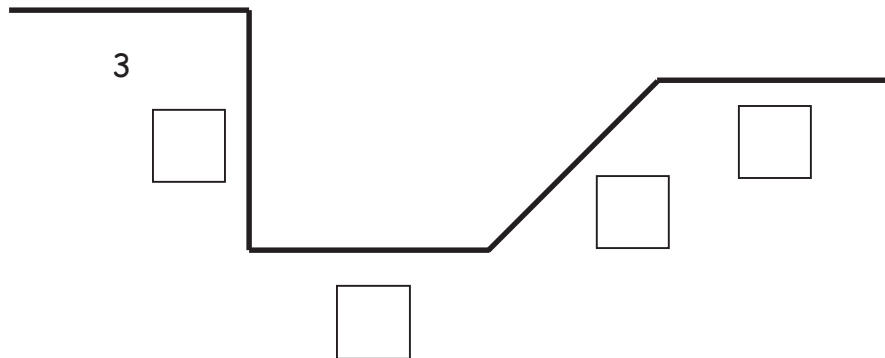
1.



- a. Line 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. 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 

- Path A is \_\_\_\_\_ cm long.
  - Path B is \_\_\_\_\_ cm long.
  - Together, Paths A and B measure \_\_\_\_\_ cm.
  - 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.
- How far did Steven jump? \_\_\_\_\_ centimeters
  - Who won the jumping contest? \_\_\_\_\_
  - Draw a tape diagram to compare the lengths that Shawn and Steven jump.

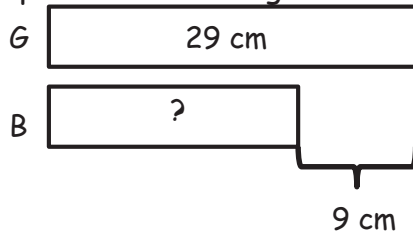
Name \_\_\_\_\_

Date \_\_\_\_\_

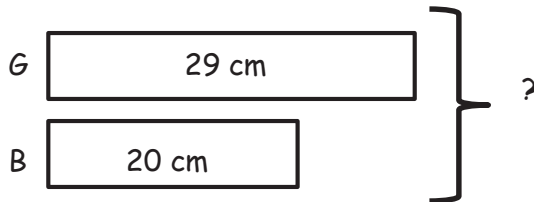
Use the RDW process to solve. Draw a tape diagram for each step. Problem 1 has been started for you.

1. 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.



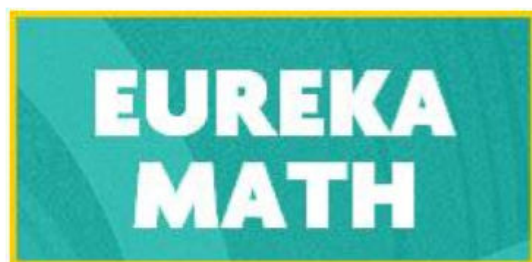
2. Joanna and Lisa drew lines. Joanna's line is 41 cm long. Lisa's line is 19 cm longer than Joanna's. How long are Joanna's and Lisa's lines?

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

Step 2: Find the total length of their lines.







---

---

Video tutorials: <http://embarc.online>



This work is licensed under a  
Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Unported License.