

CHAPTER
7

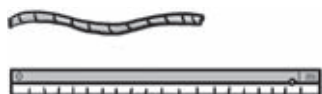
Metric Measurement of Length

Practice 1 Measuring in Meters

Look at the pictures.

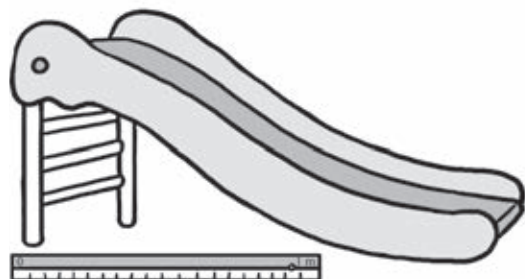
Fill in the blanks with *more* or *less*.

1.



The length of the rope is _____ than 1 meter.

2.



The length of the slide is _____ than 1 meter.

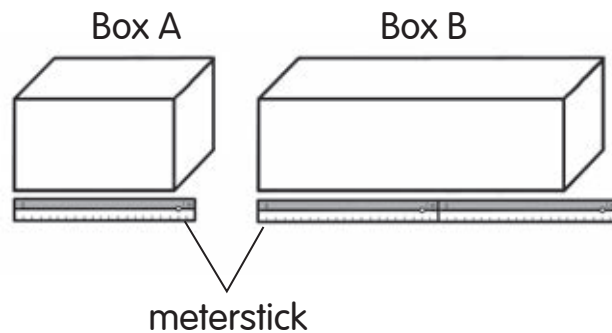
3.



The height of the bookcase is
_____ than 1 meter.

Fill in the blanks.

4. Metersticks are placed against two boxes.

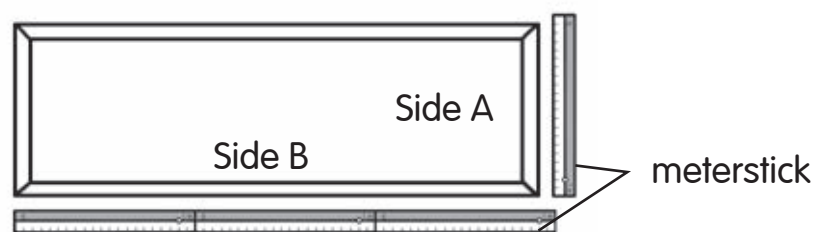


- a. Which box is about 1 meter long? Box _____

Fill in the blanks with *more* or *less*.

- b. Box A is _____ than 1 meter long.
- c. Box B is _____ than 1 meter long.

5. Metersticks are placed against a board.



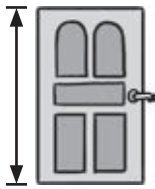

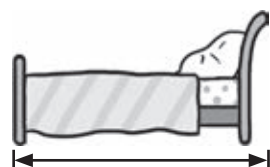

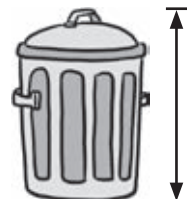
- a. Which side of the board is about 3 meters long?
Side _____
- b. Side A is shorter than _____ meter.
- c. Side B is shorter than _____ meters.

Look at the list below.

Check (✓) the columns that are true.

You will need a meterstick or a 1-meter string to measure some items.

6.

Object	Less than 1 meter	More than 1 meter	More than 1 meter but less than 2 meters	More than 2 meters
Door 				
Desk 				
Bed 				
Computer monitor 				
Trash can 				

Name three objects that match each length.



7.

Length	Object
Less than 1 meter long	
About 1 meter long	
More than 1 meter long	

Fill in the blanks.

Use string and a meterstick.

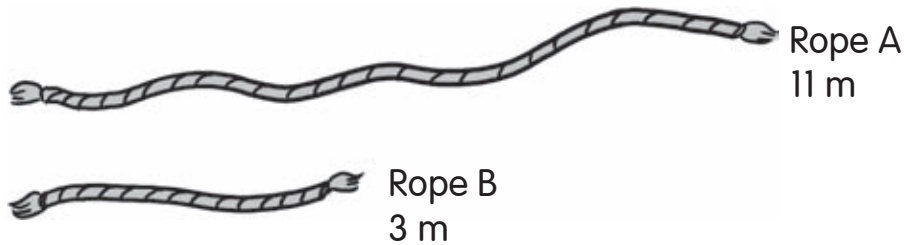
- 8.** Mark on the string with a pencil how long you think 1 meter is.
Then use a meterstick to measure this length.
Did you mark more or less than 1 meter on your string?

- 9.** Next, mark on the string how long you think 2 meters are.
Then use a meterstick to measure this length.
Did you mark more or less than 2 meters on your string?

Practice 2 Comparing Lengths in Meters

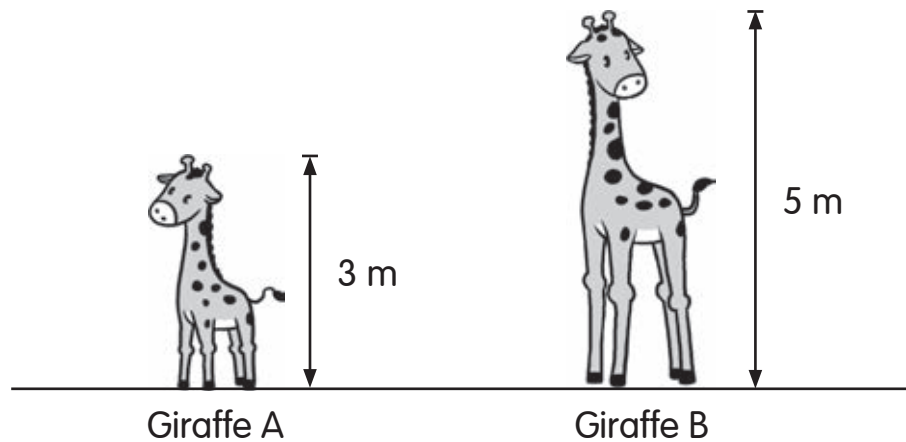
Fill in the blanks.

1. Look at the two ropes.



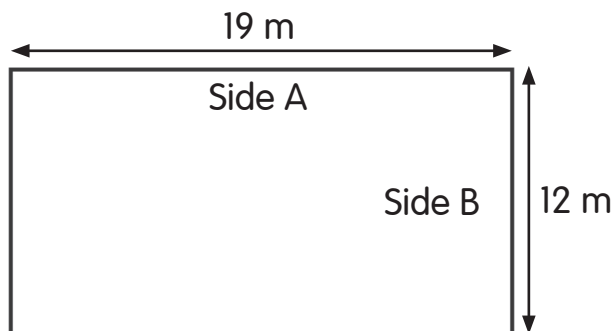
- a. Which rope is longer? Rope _____
- b. How much longer is it? _____ m

2. Look at the two giraffes.



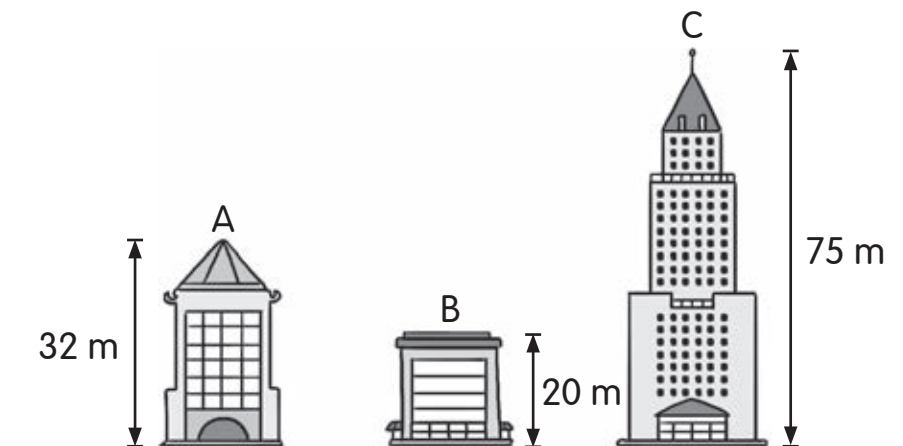
- a. Which giraffe is taller? Giraffe _____
- b. How much taller is it? _____ m

3. Look at the sides of the rectangle.



- a. Which is shorter, Side A or Side B? Side _____
- b. How much shorter is it? _____ m

4. Look at the buildings.

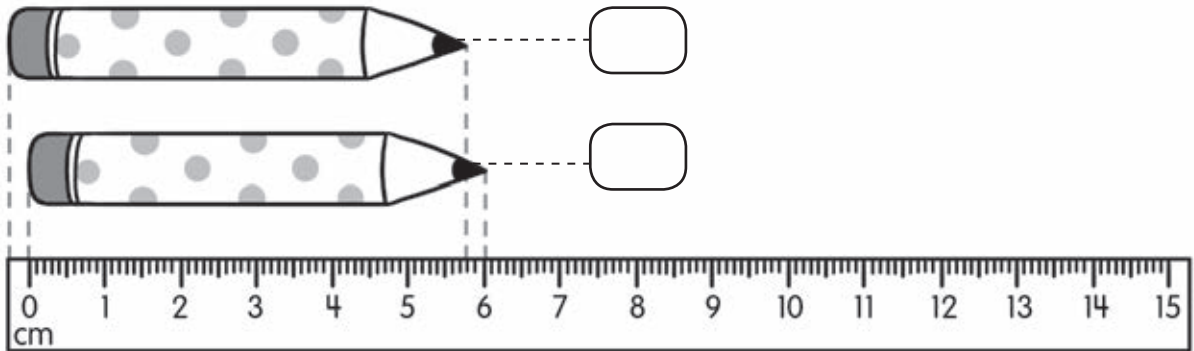


- a. Which building is the shortest? Building _____
- b. Which building is the tallest? Building _____
- c. Building B is _____ meters shorter than Building C.
- d. How much taller is Building C than Building A? _____ m

Practice 3 Measuring in Centimeters

Check (✓) the correct way to measure the length of the pencil.

1.



Use your centimeter ruler to draw.

2. A line that is 5 centimeters long

3. A line that is 12 centimeters long

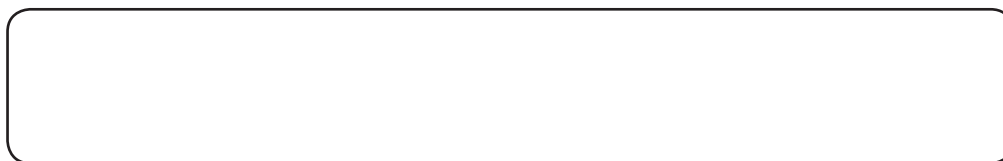
4. A line that is 9 centimeters long

Use your centimeter ruler to draw.

5. A line that is 6 centimeters long



6. A line that is 2 centimeters shorter than the line in Exercise 4.



7. A line that is 2 centimeters longer than the line in Exercise 5.



Use a piece of string to find the length.

8.



_____ cm

9.



_____ cm

10.



_____ cm

Name: _____

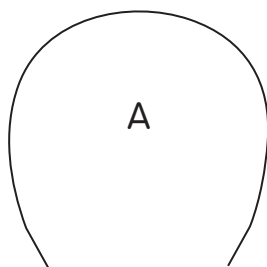
Date: _____

**Cut a piece of string as long as the drawing below.
Then place the string on a centimeter ruler to find its length.**

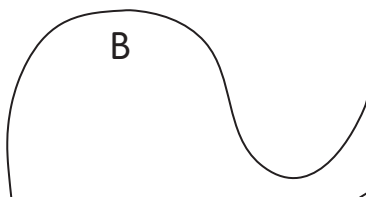
- 11. a.** How long is the string? _____ cm



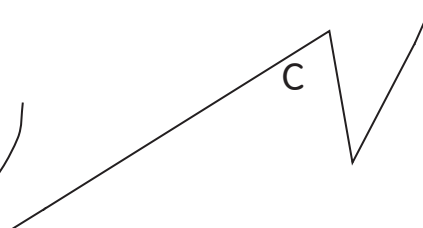
- b.** This string is used to form the following shapes.
Use a string and a centimeter ruler to measure each of them.



_____ cm



_____ cm

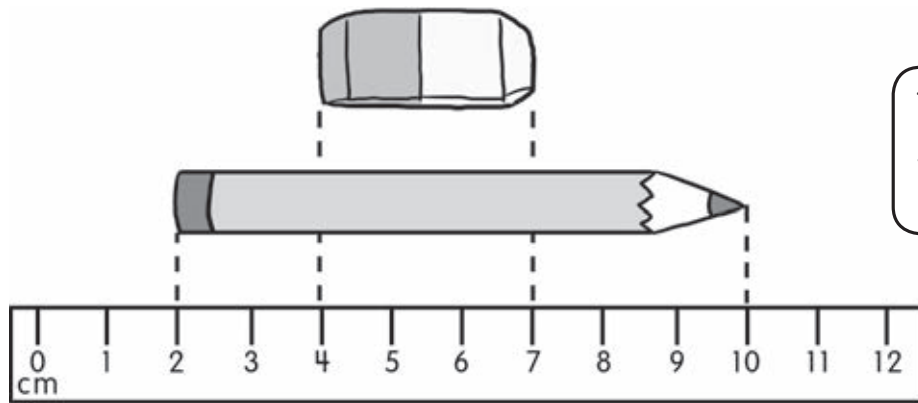


_____ cm

Do they all have the same length? _____

Explain your answer.

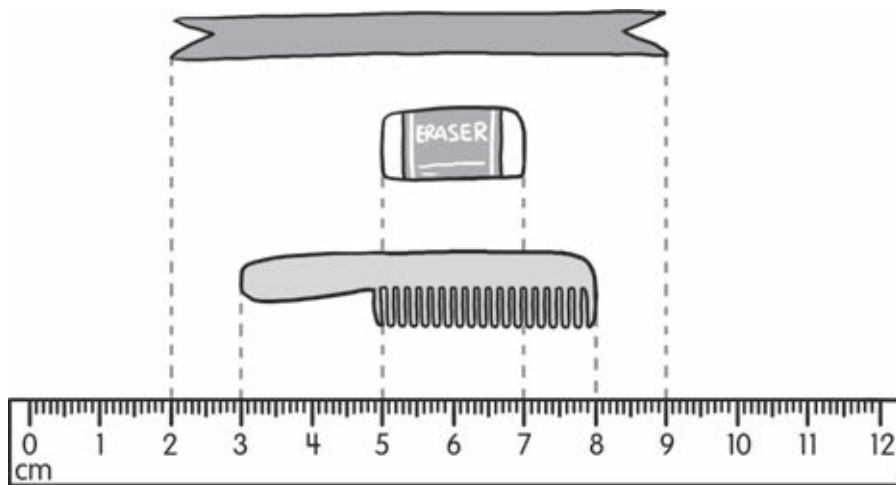
Find the missing numbers.



These rulers are smaller than in real life.



- 12.** The pencil is _____ centimeters long.
- 13.** The eraser is _____ centimeters long.

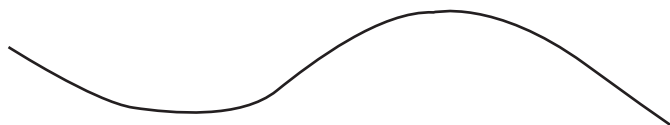


- 14.** The length of the comb is _____ centimeters.
- 15.** The length of the ribbon is _____ centimeters.
- 16.** The length of the eraser is _____ centimeters.

Practice 4 Comparing Lengths in Centimeters

Look at each drawing.
Then fill in the blanks.

1.



Drawing A



Drawing B

Which is longer? Drawing _____

2.



Drawing A



Drawing B



Drawing C

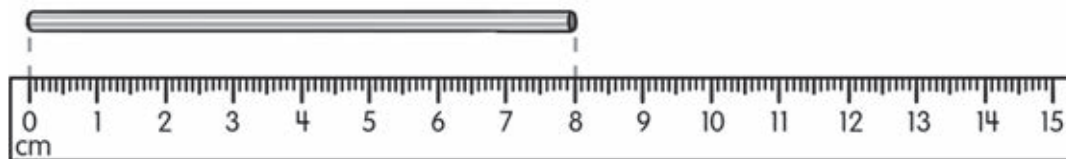
Drawing _____ is the shortest.

Drawing _____ is the longest.

Explain your answers.

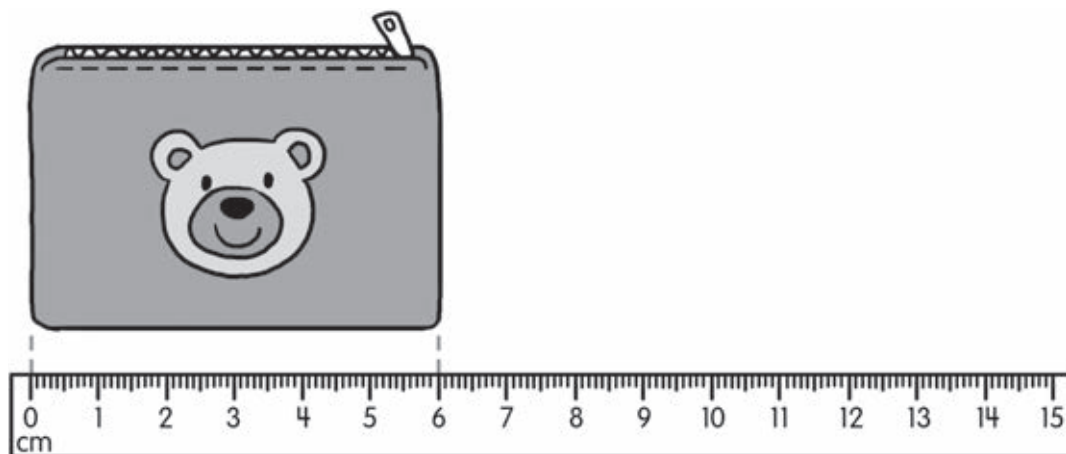
Find each length.

3.



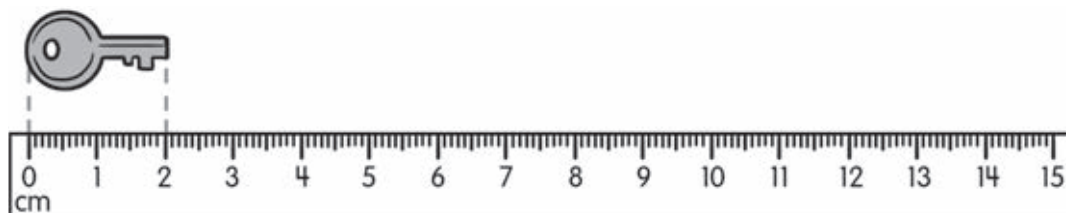
The straw is about _____ centimeters long.

4.



The wallet is about _____ centimeters long.

5.



The key is about _____ centimeters long.

These rulers are
smaller than in
real life.

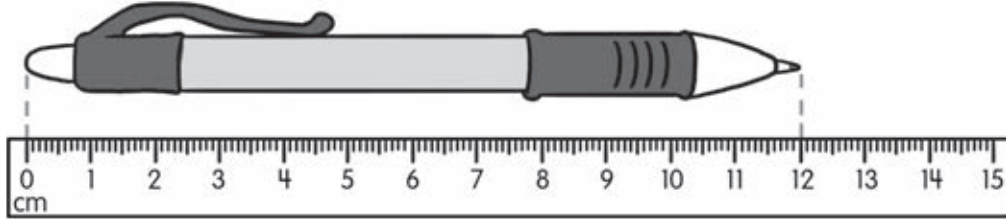


Name: _____

Date: _____

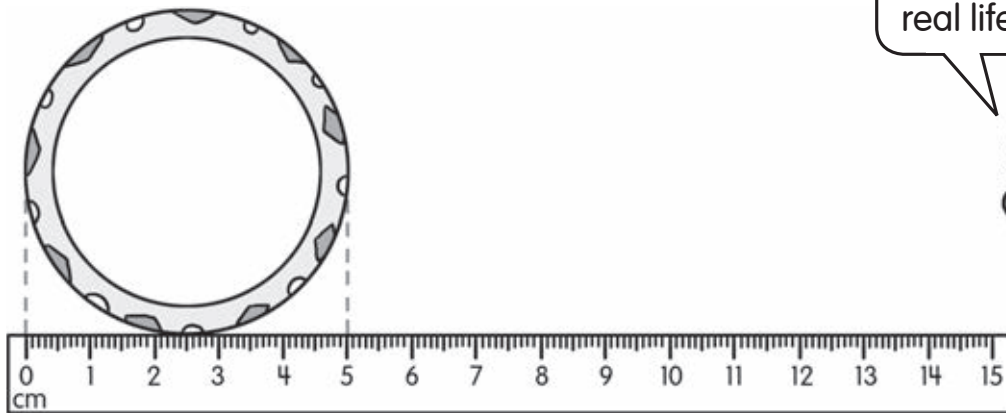
Find each length.

6.



The pen is about _____ centimeters long.

7.



These rulers are
smaller than in
real life.



The bracelet is about _____ centimeters wide.

**Use your answers for Exercises 3 to 6.
Fill in the blanks with *longer* or *shorter*.**

8. The pen is _____ than the straw.

9. The key is _____ than the pen.

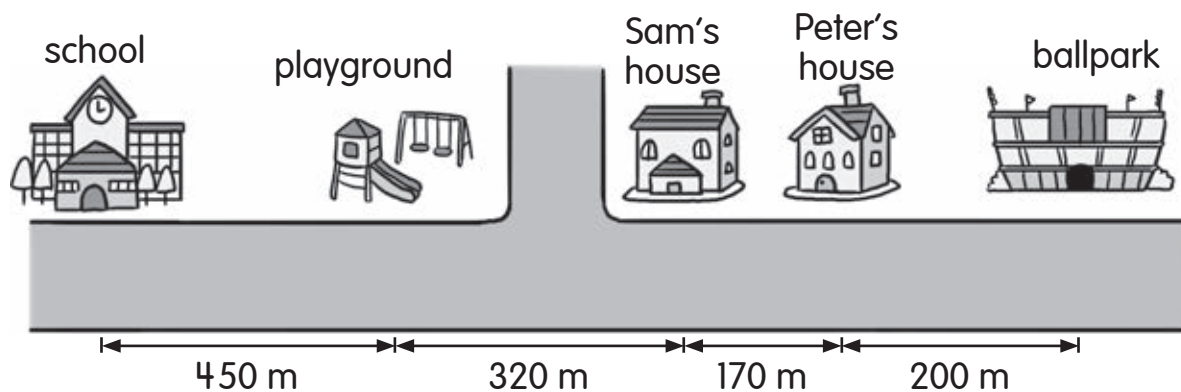
10. The wallet is _____ than the straw.

Use your answers for Exercises 3 to 7.
Fill in the blanks.

- 11.** The straw is _____ centimeters longer than the key.
- 12.** The straw is _____ centimeters shorter than the pen.
- 13.** The pen is _____ centimeters longer than the key.
- 14.** The bracelet is _____ centimeter shorter than the wallet.
- 15.** The longest object is the _____.
- 16.** The shortest object is the _____.

Practice 5 Real-World Problems: Metric Length

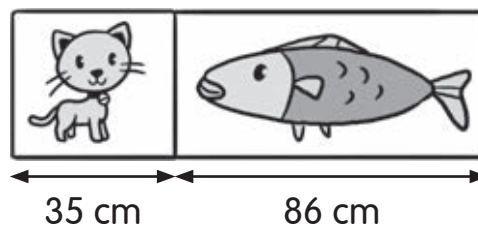
Solve.



- How far does Sam walk from his house to the playground? _____ m
- How far is Peter's house from the playground? _____ m
- Who lives nearer to the school, Sam or Peter? _____
- How much nearer? _____ m
- If Sam goes to the ballpark from his house, how far does he walk? _____ m
- Peter left his house to walk to the ballpark. He has walked 123 meters. How much farther does he have to walk? _____ m

Solve.

7. There are two pictures.
One of them is 35 centimeters long.
The other is 86 centimeters long.
They are placed side by side.
What is the length of the two pictures?



The length is _____ centimeters.

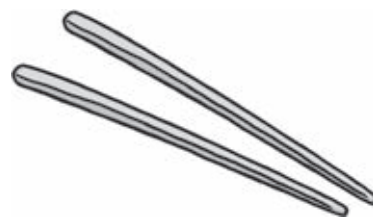
8. A ribbon is cut into three pieces.
They are 4 meters, 6 meters, and 2 meters long.
How long was the ribbon before it was cut?

The ribbon was _____ meters long.

9. Mrs. Chu has two pairs of chopsticks.
Each red chopstick is 19 centimeters long.
Each yellow chopstick is 22 centimeters long.

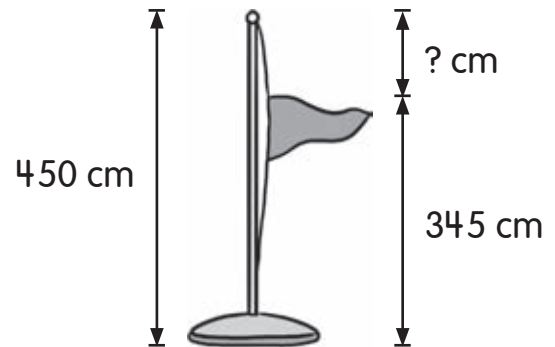
- a. Which pair of chopsticks is longer?
The _____ chopsticks

- b. How much longer? _____ cm



Solve.

- 10.** A flag pole is 450 centimeters tall.
The top of the flag is 345 centimeters from the ground.
How much farther must it be raised to reach the top?



The flag must be raised _____
centimeters farther to reach the top.

- 11.** The total length of two pieces of wood is 215 centimeters.
The first piece is 135 centimeters long.

- a.** What is the length of the second piece?

The length of the second piece is _____ centimeters.

- b.** How much shorter is the second piece than
the first piece?

The second piece is _____ centimeters shorter than
the first piece.

- 12.** Max is 135 centimeters tall.
He is 18 centimeters taller than Rita.
Rita is 30 centimeters shorter than Jan.
How tall is Jan?

Jan is _____ centimeters tall.

- 13.** Cody has a strip of paper 10 centimeters long.
He cuts it into three pieces.
One piece is 4 centimeters long.
The second piece is 3 centimeters long.
How long is the third piece of paper?

The third piece of paper is _____ centimeters long.

- 14.** A string is 200 centimeters long.
Kaly uses 63 centimeters of it to tie a box.
She gives 48 centimeters of it to Susan.
How long is the string that Kaly has left?

The length of the string that Kaly has left is _____ centimeters.



Put On Your Thinking Cap!

Challenging Practice

Solve.

1. There are three drawings — A, B, and C.
Drawing A is shown below.

_____ Drawing A

Drawing B is 2 centimeters longer than Drawing A.
Drawing C is 3 centimeters shorter than Drawing B.
How long is Drawing C?

2. Sara bought three pieces of ribbon.
She bought 90 centimeters of ribbon in all.
Check (✓) to show which three pieces of ribbon she bought.

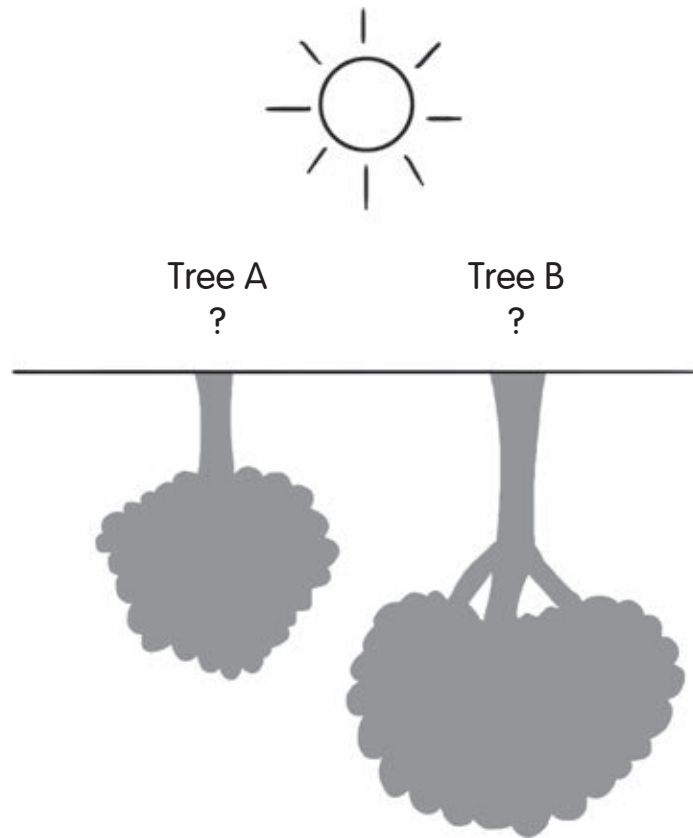
Ribbon	Length of Ribbon	Check
A	25 cm	
B	42 cm	
C	38 cm	
D	15 cm	
E	10 cm	
F	20 cm	



Put On Your Thinking Cap!

Problem Solving

The picture shows the shadows of two trees.



Look at the shadows. Which tree is taller? Tree _____

Explain your answer.

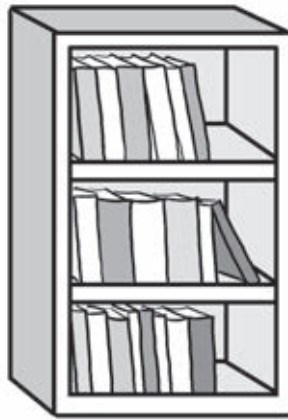
Chapter Review/Test

Vocabulary

Fill in the blanks with words from the box.

meters meterstick height centimeters width length

1.



To find how high this bookcase is, I need to find its _____.

2. An earthworm is about 10 _____ long.

3.

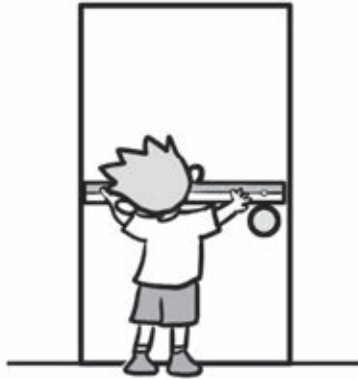


This is a _____.

Fill in the blanks with words from the box.

meters meterstick height centimeters width length

4.



Jose is trying to find the _____ of the door.

5. A whiteboard is about 3 _____ long.

6.



The _____ of this truck is about 6 meters.

Concepts and Skills

Check (✓) the correct answers.

7. What is the length of your math textbook?

Length	Check
About 1 meter	
Less than 1 meter	
More than 1 meter	

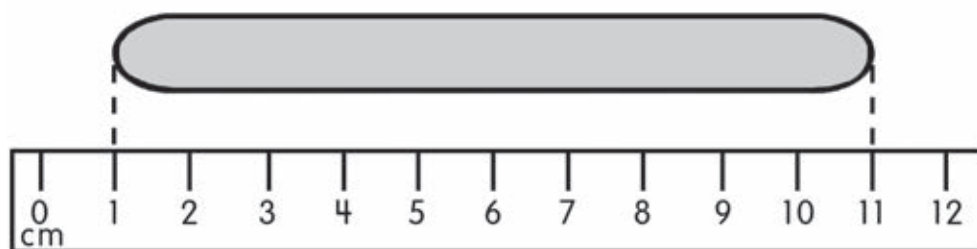
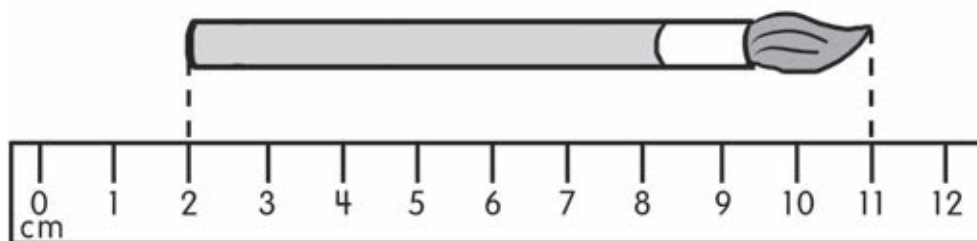
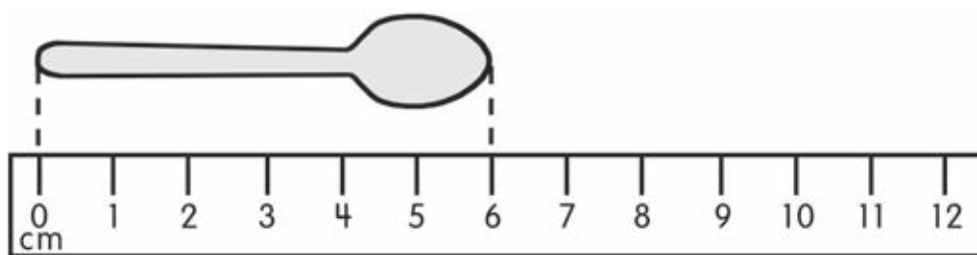
8. What is the height of your desk?

Height	Check
About 1 meter	
Less than 1 meter	
More than 8 meters	
Less than 3 meters	

9. What is the height of your classroom?

Height	Check
About 1 meter	
Less than 1 meter	
More than 8 meters	
Less than 8 meters	

Look at the objects measured.
Then fill in the blanks.



What are the lengths of the

- 10.** spoon: _____ cm
- 11.** brush: _____ cm
- 12.** craftstick: _____ cm
- 13.** The craftstick is _____ centimeters longer than the spoon.
- 14.** The _____ is the shortest.

Name: _____

Date: _____

Solve.

- 15.** Shane has 5 meters of cloth.
He needs 16 meters more cloth to make some curtains.
How many meters of cloth are needed to make the curtains?

_____ meters of cloth are needed to make the curtains.

- 16.** Two boards are 26 meters long altogether.
One board is 8 meters long.
How long is the other board?

The other board is _____ meters long.

- 17.** Bella is 161 centimeters tall.
She is 12 centimeters taller than Joshua.
How tall is Joshua?

Joshua is _____ centimeters tall.

- 18.** Raul has a box that is 9 centimeters wide.
Ling's box is 3 centimeters wider than Raul's box.
Will both their boxes fit on a shelf that is 30 centimeters wide?
Explain why.
