

# 8

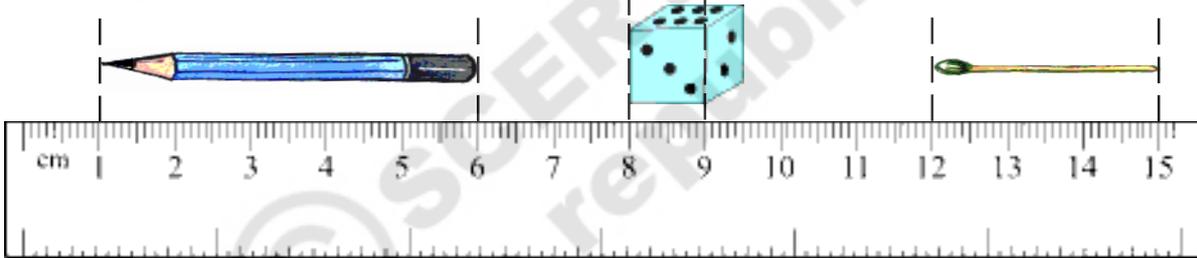
## How long is this?

You have measured the length of pencils in class 3 using a scale. Look at your scale. How many centimeters are there on the scale? You had also learnt that we write centimeters in short as cm.

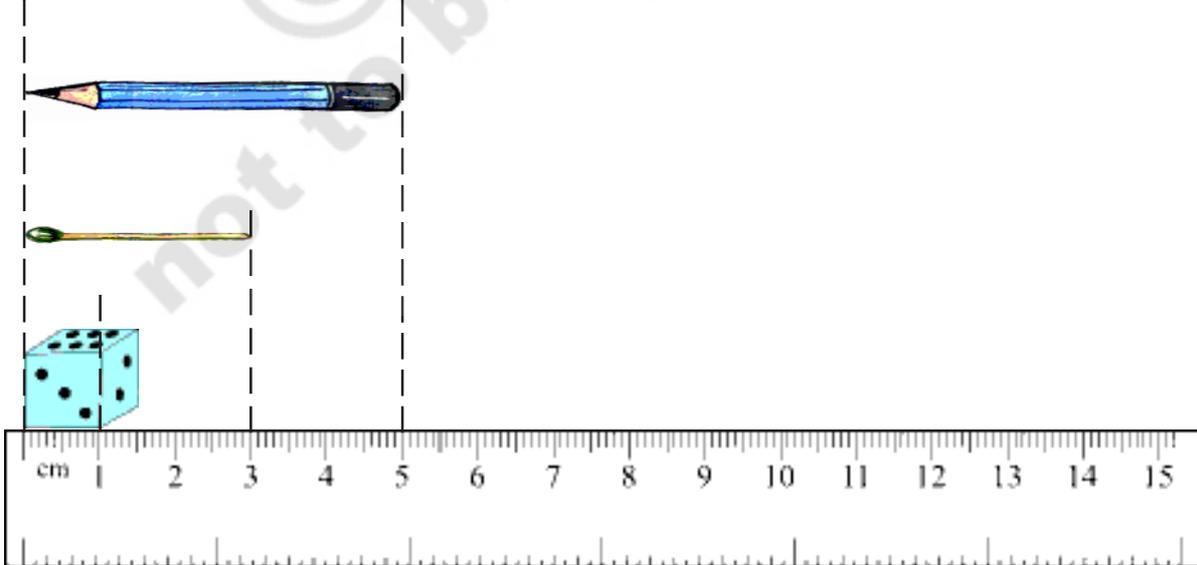
How many centimeters long is the pencil or chalk you are holding? Put it along this scale and measure its length.



How long are the objects drawn below.



Now measure these objects again in this way.



Was it easier to measure the objects in the second way? Why do you think this was the case?

**Estimate the lengths and then measure them.**



How long do you think your thumb is? \_\_\_\_\_ cm.

Now measure and find out how long your thumb is \_\_\_\_\_



How long do you think your little is? \_\_\_\_\_

Now measure and find out how long your small finger is \_\_\_\_\_

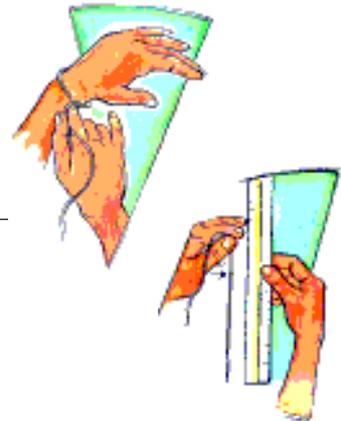


What do you think is the length of your palm? \_\_\_\_\_

Now measure and find out how long your palm is \_\_\_\_\_

What do you think is the length of your wrist? \_\_\_\_\_

Now measure and find out how long your wrist is \_\_\_\_\_



**Do This**

1. Name 5 things whose length is less than 1 centimeter.

\_\_\_\_\_

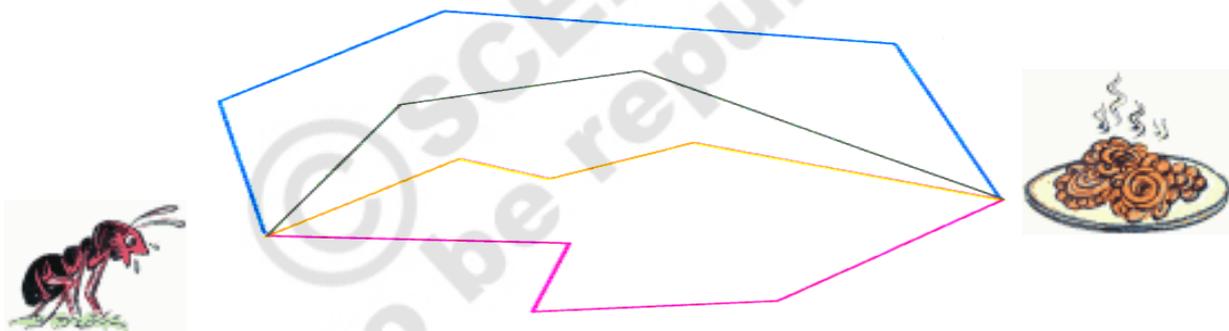
2. Name 3 things whose length is about 15 centimeters.

\_\_\_\_\_

3. Estimate and then measure the length of the objects given below, using a scale. Record both these lengths in the table given below.

Object	Estimated length	Measured length
A complete piece of a chalk		
Your pencil		
Your comb		
Your eraser		
Your slate		
Your mathematics book		
Your notebook		

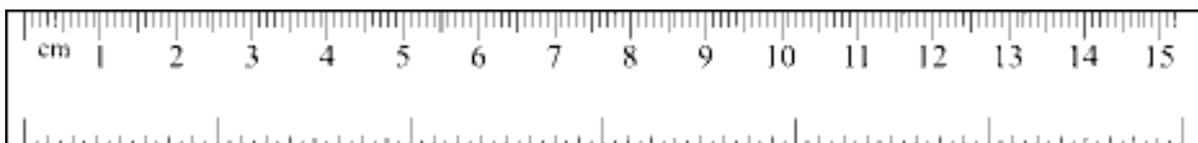
**Help the ant find the shortest route to her food**



- (a) Out of the four routes, which is the shortest route the ant can take?  
 (b) Can you think of a route shorter than these four routes? Draw it.

**Measure your height**

Look at your scale again. On one side we have centimeters. On the other we have inches.



- (a) Is one inch bigger than one centimeter? \_\_\_\_\_  
 (b) How many centimeters make an inch? \_\_\_\_\_

Now measure the height of three of your friends in centimeters and inches using a scale or measuring tape and write in the table below.



Name	Height (cms)	Height (inches)



### From shorter lengths to longer lengths

Is it easy to measure the length of the classroom in centimeters? What about the length of cloth that you need for making clothes?

We need bigger units to measure bigger lengths easily.

Shanu went to a tailors shop with some cloth.



The tailor used a measuring tape to measure the length of Shanu's cloth.

Have you seen a measuring tape? It has marking of centimeters on one side and inches on the other side.

100 centimeters make a meter.

1 meter (m) = 100 centimeters (cm)

Ask your teacher to cut a meter long rope and give it to you to measure various lengths.

## Activity

- Take a newspaper. Cut 20 cm, 25 cm, 50 cm and 1 m long strips from it.
  - How many of these 20 cm strips make a meter? \_\_\_\_\_
  - How many of these 25 cm strips make a meter? \_\_\_\_\_
  - How many of these 50 cm strips make a meter? \_\_\_\_\_

### Are these longer than a meter?

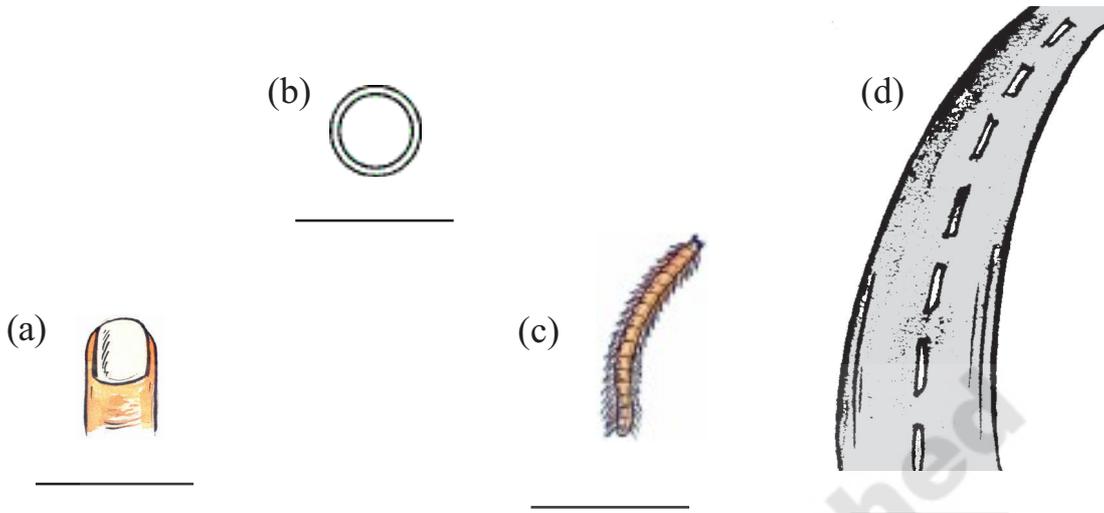
Estimate whether these are more than a meter or less than a meter and tick the correct option. Then use a meter long rope and find their lengths. Use a scale to measure length smaller than a meter.

Object	Estimate	Measured length
Length of black board in your Classroom	More than a meter/ less than a meter	
Breadth of your black board in your Classroom	More than a meter/ less than a meter	
Length of your teacher's Table Top	More than a meter/ Less than a meter	
Breadth of your teacher's Table Top	More than a meter/ Less than a meter	
Length of your classroom window	More than a meter/ Less than a meter	
Breadth of your classroom window	More than a meter/ Less than a meter	

### Do This

- Name 5 things that are about a meter long.
- What is the length of the classroom? What is its breadth?  
Measure using the meter rope and check your estimate.

3. Which of the following would you measure in meter and which would you measure in centimeter?



### Sports Day

On sports day the school has organized a 100 meter race for class 4 children. Saraswathi is nearest to the finishing line. She is 6 metres away from the finishing point. Durga is in second place and Mahadev is behind her.

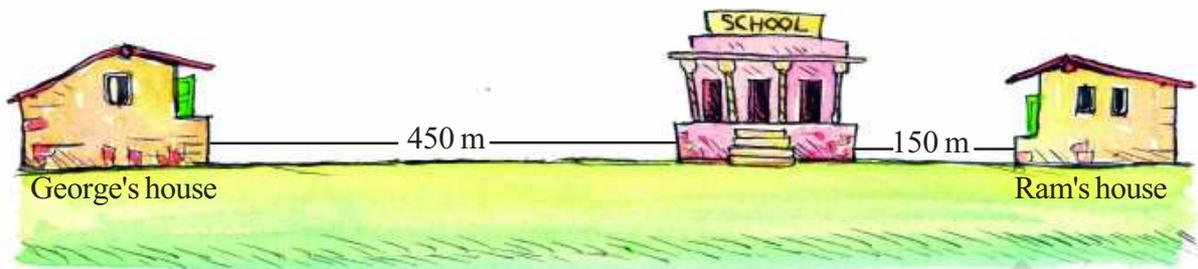


1. **Estimate:**

- (a) About how many meters is Durga away from Saraswathi ?
- (b) About how many meters is Mahadev away from the finishing line?

### How far do they live from each other?

Ram and George live in opposite directions from their school.



- (a) What is the distance between Ram's house and George's house?

### Javelin Throw

The Olympic Games 2012 were held in London. The details of the women who got the gold, silver and bronze medal in the game of Javelin Throw are given below-

Medal	Name	Country	Length of throw
Gold	Barbora Spotakova	Czech Republic	69m 55 cm
Silver	Christina Obergfoll	Germany	65m 16 cm
Bronze	Linda Stahl	Germany	64m 91 cm

- (a) What is the difference in Barbora's and Christina's length of throw?
- (b) What is the difference in Barbora and Linda's length of throw?
- (c) The world record for javelin throw is 72m 28cm and is also held by Barbora Spotakova. Barbora is how many meters short of her world record at the London Olympics?



## Try This

### 1. How high is the Char Minar?

The Char Minar in Hyderabad is 56 m long. What is the height of your school building? How many of your school buildings if placed one on top of the other will be as high as the Char Minar?



## Exercise

- 4 m of ribbon = \_\_\_\_\_ cm of ribbon.
  - 9 m of pipe = \_\_\_\_\_ cm of pipe.
  - 450 cm of cloth = \_\_\_\_\_ m \_\_\_\_\_ cm of cloth.
  - 750 cm of rope = \_\_\_\_\_ m \_\_\_\_\_ cm of rope.
- I went and bought 2 m 50 cm cloth for my kurta and 3 m 75cm cloth for my pajama. What is the total length of cloth that I bought?
- The length of the shadow of a flag pole is 3 meter 45 centimeters at 8 o'clock in the morning. By 1 o'clock in the afternoon it is 1 metre 65 cm. What is the difference in the length of the shadow in the morning and in the afternoon?
- Rayyan bought 12 m 50 cm of mangalgiri cotton cloth and 10 m 25 cm of pochampalli cotton cloth for making curtains, from a shop. What is the total length of the cloth he bought?
- A tailor had 4 m 45cm of cloth. He cut off 3m 95 cm of the cloth to stitch a pair of trousers. What is the length of cloth that is left?
- Prasad bought 20 meters of rope. He used 12 m 30 cm of rope to tie one clothes line and 7 m 45 cm to tie another clothes line. What is the total length of rope that he used? What is the length of rope left with him?
- A cloth merchant bought a roll of pochampalli cotton of length 140 m. He sold 46 m 85 cm of the cloth. How much cloth is left in the roll?

8. Head mistress Jaya bought a ribbon of length 18m. If she gives each girl a ribbon of length 25 cm, a maximum of to how many girls can she distribute ribbon?

9. **Shot putt**

At the Olympic Games in London the details of the women who got the gold, silver and bronze medal in the game of shot putt are given below.



Medal	Name	Country	Length of throw
Gold	Valarie Adams	New Zealand	20m 70 cm
Silver	Yergeniya Kolodko	Germany	20m 48 cm
Bronze	Gong Lijiao	Germany	20m 22cm

- What is the difference in Valarie and Gong length of throw?
- For qualifying to compete in this game all participants were required to throw the 'putt' at least 18 m 90 cm away. How much further did Valarie throw the 'putt'?
- The world record for shot putt throw is 22 m 63 cm and is held by Natalya Lisovskaya. Yergeniya is how many meters short of this world record?