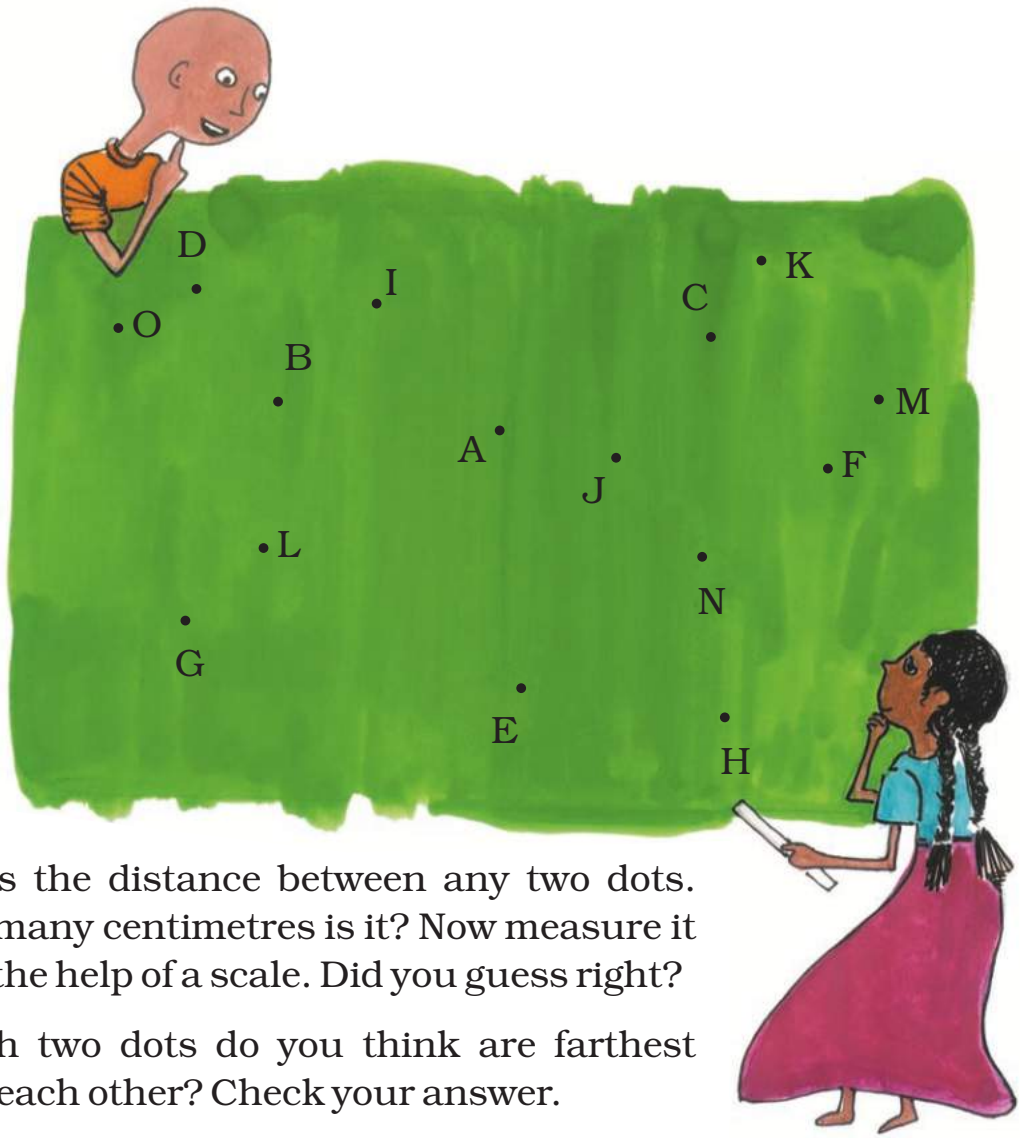
# 2 Long and Short

0425CH02

## How Far Apart are the Dots?




- ★ Guess the distance between any two dots. How many centimetres is it? Now measure it with the help of a scale. Did you guess right?
- ★ Which two dots do you think are farthest from each other? Check your answer.
- ★ Which two dots are nearest to each other? Check your answer.

Children can play this game in pairs, making dots on a plain sheet and asking their partner to guess the distance. This can also be extended to estimating bigger distances on the floor. The border of this chapter should also be used as a scale.

## The Shorter Line

Akbar was a famous king. He had a smart minister called Birbal. Once Akbar gave him a difficult question. He drew a line on the floor.

Look at the picture and explain how Birbal made Akbar's line shorter.

Now can you be as smart as Birbal? Make his line shorter without erasing it. Just think — is there any longest line?

## Try This

★ Make her right arm 1 cm longer than the left arm.

★ Draw a cup 1 cm shorter than this cup.

★ Draw a broom half as long as this broom.

★ Draw another hair of double the length.

## How Tall Have You Grown?

Do you remember that in Class 3 you measured your height?

Do you think you have grown taller?

How much? _____ (cm)

Have your friends also grown taller?

Find out and fill the table below.

| *Friend's name* | *Last year's height (in cm)* | *This year's height (in cm)* | *How many cm have they grown?* |
|---|---|---|---|
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Jhumpa once read a list of the tallest people in the world. One of them was 272 cm tall! That is just double of Jhumpa's height. How tall is Jhumpa? _____ cm.

### *Imagine*

- ★ Could that person pass through the door of your classroom without bending?
- ★ Will his head touch the roof of your house if he stands straight?

### The Long and Short of Your Family!

- ★ Who is the tallest in your family? _____
- ★ Who is the shortest in your family? _____
- ★ What is the difference between their heights? _____

## Inter-School Sports Meet

### *Race*

This is a 100 metre race for girls. Arundhati is nearest the finishing line. She is about 6 metres from it.

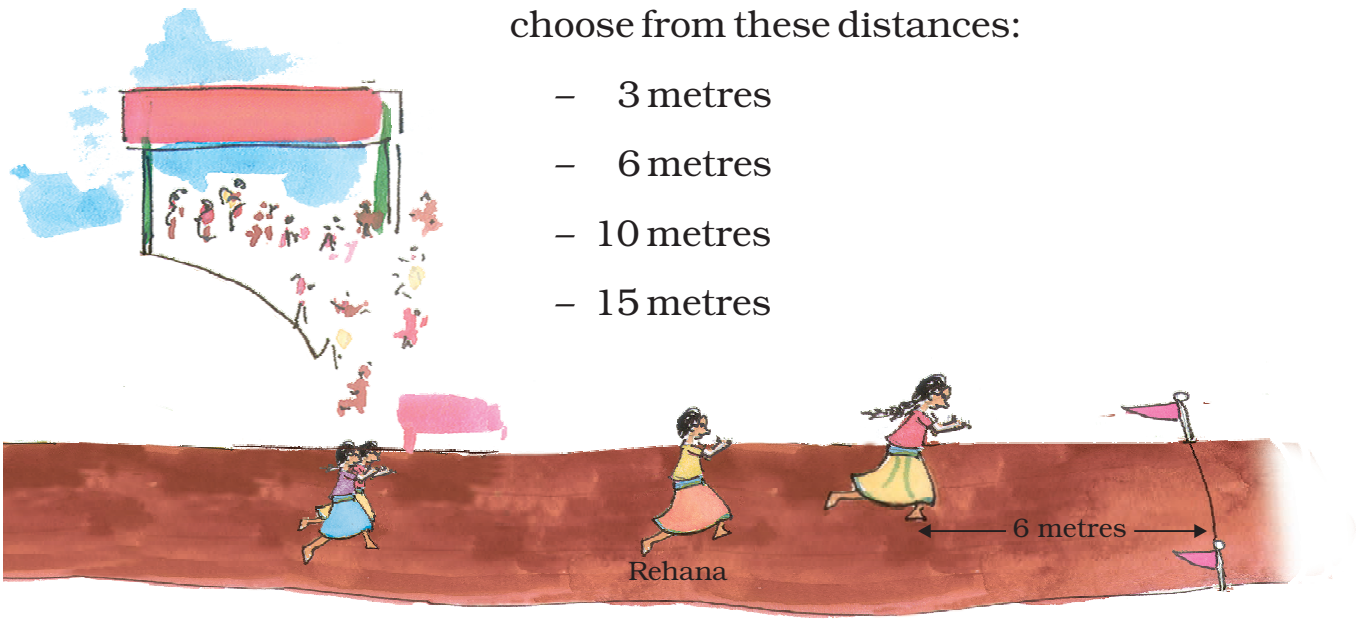
Behind her is Rehana. Konkana and Uma are running behind Rehana. Look at the picture. To answer the questions below choose from these distances:

– 3 metres

– 6 metres

– 10 metres

– 15 metres




a) How far is Rehana from Arundhati? _____

b) How far ahead is Rehana from Konkana and Uma? _____

c) How far are Konkana and Uma from the finishing line? _____

Have you heard about a 1500 m or 3000 m race? (You remember that 1000 metres make 1 kilometre and 500 metres make half a kilometre.)

★ So you can say —

In a 1500 metres race people run _____ km

In a 3000 metres race people run _____ km

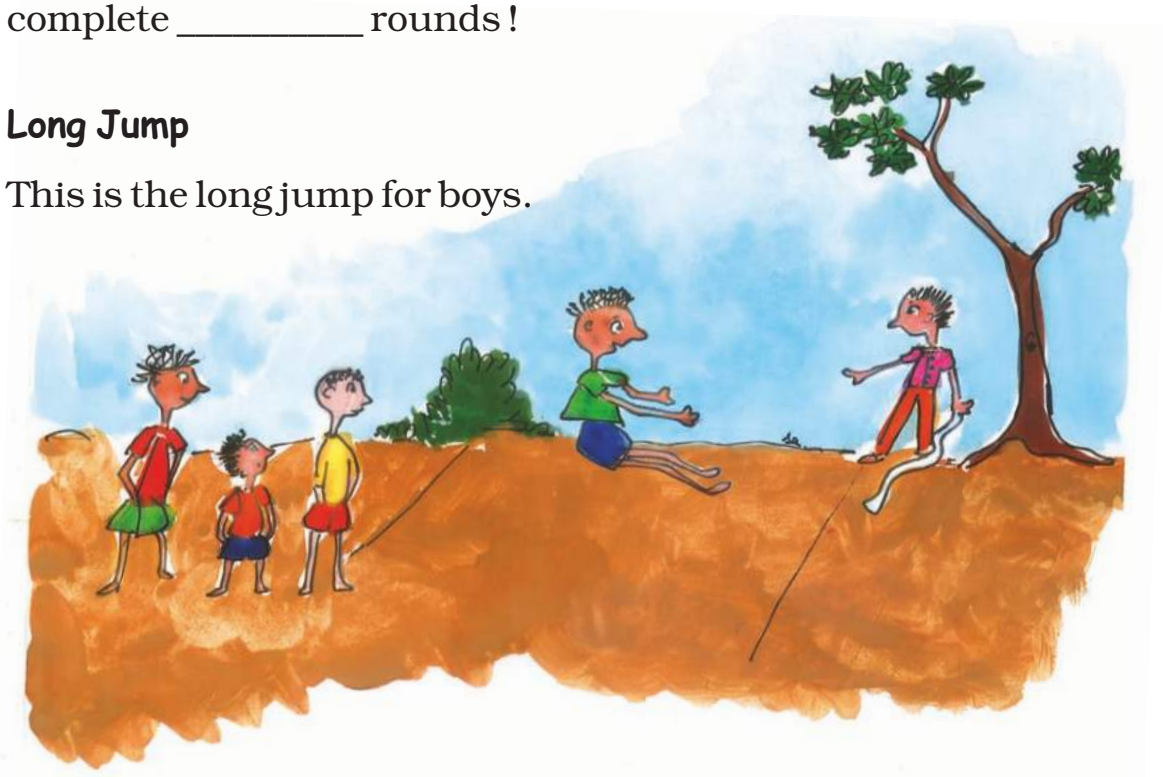
Have you heard about marathon races in which people have to run about 40 kilometres? People run marathons on roads because the track of a stadium is only 400 metres.

10 rounds of a stadium track = _____ km

So, if you run a marathon on a stadium track, you will have to complete _____ rounds !

## Long Jump

This is the long jump for boys.



Dhanu has the longest jump of 3 metres 40 cm. Gurjeet is second. His jump is 20 cm less than Dhanu's. Gopi comes third. His jump is only 5 cm less than Gurjeet's jump.

★ How long are Gurjeet's and Gopi's jumps?

_____

★ Try and see how far you can jump.

★ How far can you throw a ball? _____ metres.

★ Look for a big ball, like a football or volleyball. How far can you kick it? _____

Here are the Indian Records and World Records for some jumps.

| *Sports* | *World Record* | *Indian Record* |
|---|---|---|
| High Jump (Men) | Javier S. (2m 45 cm) | Chandra Pal (2m 17 cm) |
| Long Jump (Men) | Mike P. (8m 95 cm) | Amrit Pal (8m 8 cm) |
| High Jump (Women) | Stefka K. (2m 9 cm) | Bobby A. (1m 91 cm) |
| Long Jump (Women) | Galina C. (7m 52 cm) | Anju G. (6m 83 cm) |

Find out from the table —

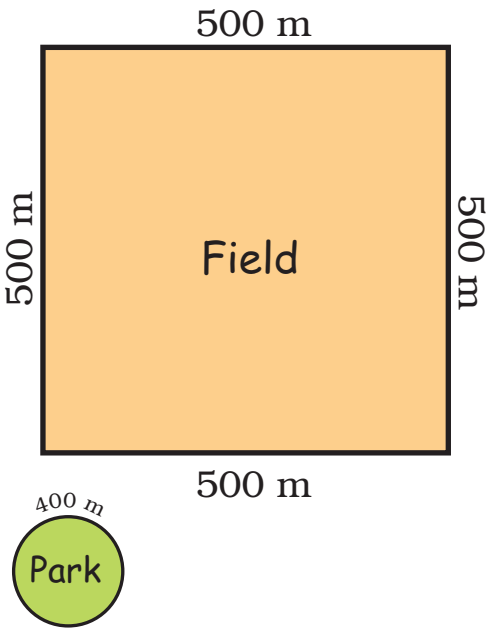
1. How many centimetres more should Chandra Pal jump to equal the Men's World Record for high jump?
2. How many centimetres higher should Bobby A. jump to reach 2 metres?

   Remember that 1m = 100 cm

   Half metre = ?
3. Galina's long jump is nearly
   a) 7 metres
   b) 7 and a half metres
   c) 8 metres
4. Look at the Women's World Records. What is the difference between the longest jump and the highest jump?
5. If Mike P. could jump _____ centimetres longer, his jump would be full 9 metres.
6. Whose high jump is very close to two and half metres?
   a) Stefka K.
   b) Chandra Pal
   c) Javier S.
   d) Bobby A.

## Running Exercise

The doctor has told Devi Prasad to run 2 km every day to stay fit. He took one round of this field. How far did he run?




The field was very far from his home. So he chose a park nearby. The boundary of the park was about 400 metres long.

★ How many rounds of the park must Devi Prasad run to complete 2 km?

★ One day the weather was very good and a cool breeze was blowing. He felt so good that he kept jogging till he got tired after 8 rounds. That day he ran _____ km and _____ metres !

## How Many Rooms High?

The Qutab Minar is 72 metres high.

About how many metres high is your classroom?

Guess how many rooms, one on top of the other, will be equal to the Qutab Minar. _____

Explain how you made a guess.

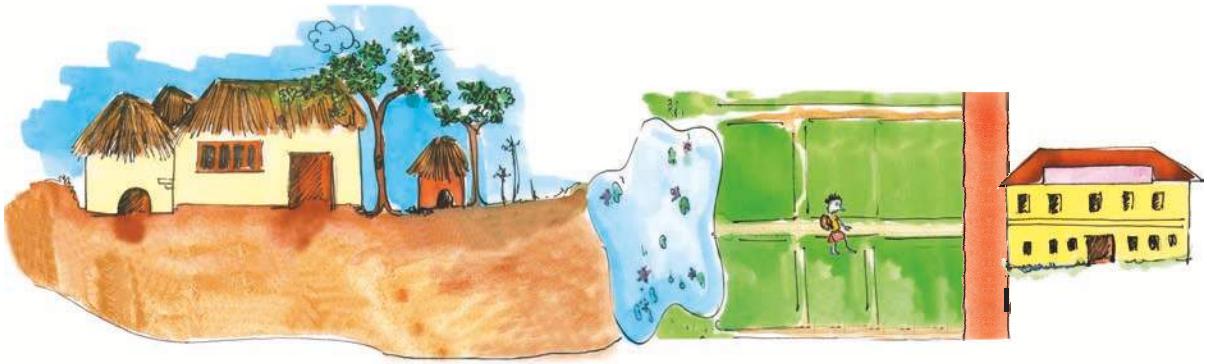
## From Kozhikode to Thalassery

Subodh is going to Kozhikode which is 24 kilometres (km) away. Manjani is going to Thalassery which is 46 km away in the opposite direction.

How far is Kozhikode from Thalassery? _____

## How Far is Your Home from School?

Momun comes to school from very far. He first walks about 400 metres to the pond. With slippers in his hands, he then walks 150 metres through the pond. Next he runs across the 350 metres wide green field. Then he carefully crosses the 40 metres wide road to reach his school.



How much does Momun walk every day to reach school? _____

Is it more than 1 km? _____

★ Find out how far your friends live from school and fill the table. Write in metres or kilometres.

| *Friend's name* | *Distance of home from school* |
|---|---|
| | |
| | |
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| | |

Who among you lives nearest to the school? _____

Who lives farthest from the school? _____

How many children live less than 1 kilometre away from your school? _____

Is there anyone who lives more than 5 km away from the school? How do they come to school? _____

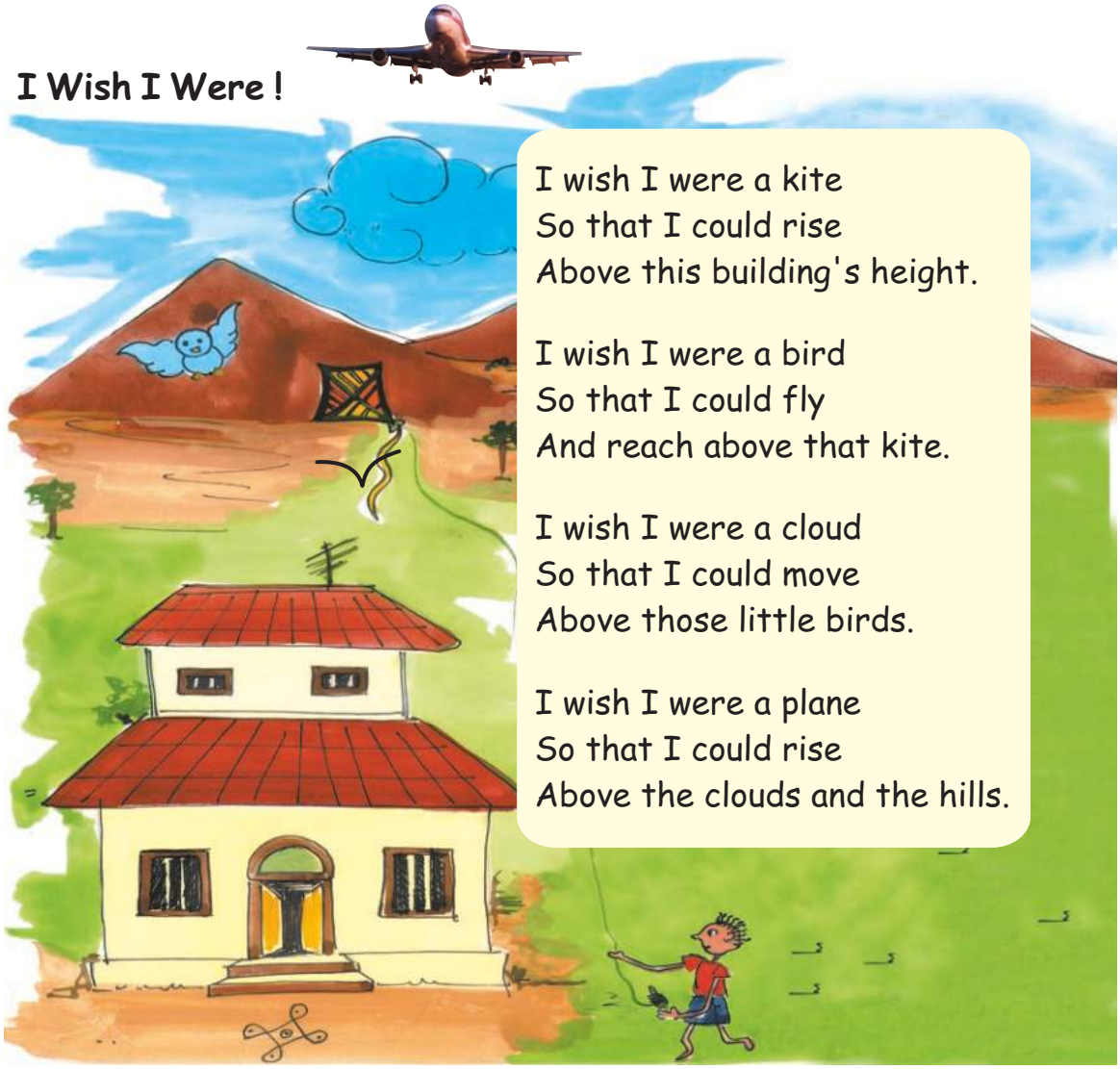
_____

## Guess and Find Out

1. How long is the thread in a reel?
2. How long is the string of a kite reel? Can it be more than a kilometre long?
3. If a handkerchief is made out of a single thread, how long would that thread be?

Children will get a good idea of 1 kilometre distance if it is possible to take them for a 1 km walk, preferably along a straight path.

## I Wish I Were !



I wish I were a kite
So that I could rise
Above this building's height.

I wish I were a bird
So that I could fly
And reach above that kite.

I wish I were a cloud
So that I could move
Above those little birds.

I wish I were a plane
So that I could rise
Above the clouds and the hills.

Try to find out:

1. Which is the highest building that you have seen? About how many rooms high was it?
2. How high can a kite go? Can it go higher than the Qutab Minar?
3. How high can a plane fly? Can it fly higher than Mount Everest which is about 9 km high?
4. Have you ever seen clouds below you?

It would be useful here to discuss about children's experiences, particularly when talking about clouds and their height, so that they get an intuitive feel of relative heights, and can begin to estimate large distances.