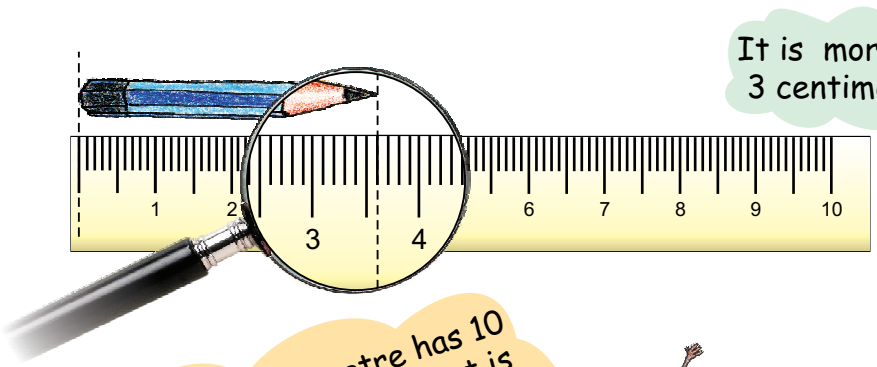
10 Tenths and Hundredths

What was the length of the smallest pencil you have used?

How long is this pencil ? Guess _____ cm 

Measure it using a scale. How good is your guess?

We can see that Anju used a lens to make it look bigger.



It is more than 3 centimetres.



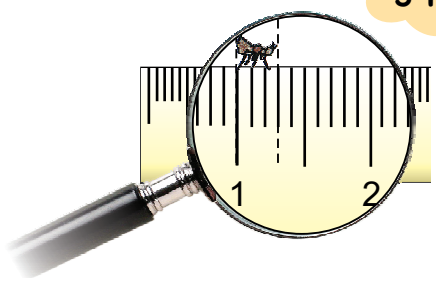
Here one centimetre has 10 equal parts. So each part is one-tenth of a centimetre. One-tenth of a centimetre is called one **millimetre (mm)**.



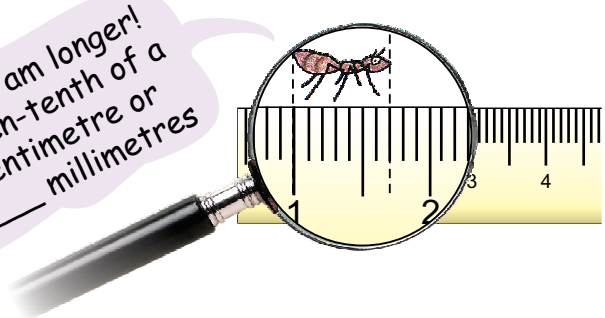


Oh, so this pencil is 3 centimetres and 6 millimetres long.

See I am 3 mm long!



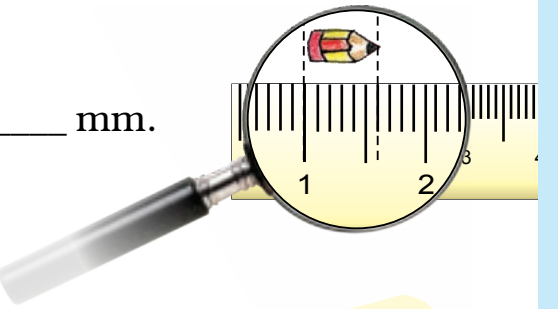
But I am longer! Seven-tenth of a centimetre or ___ millimetres



We also call one-tenth of a centimetre as 0.1 centimetre. We read it as 'zero point one centimetre'.

So one **millimetre** is the same as 0.1 cm.

❊ What is the length of this pencil? _____ mm.
What is its length in centimetres?



Frogs

Have you seen frogs? Where? How many different types of frogs have you seen? Are all the frogs of the same length? Here are two interesting examples.

Gold Frogs

This kind of frog is among the smallest in the world. Its length is only 0.9 cm !

Guess how many such frogs can sit on your little finger!



Bull Frog

But this is among the biggest frogs. It is as long as 30.5 cm!



What does 0.9 cm mean? It is the same as ____ millimetres. We can also say this is nine-tenths of a cm. Right?

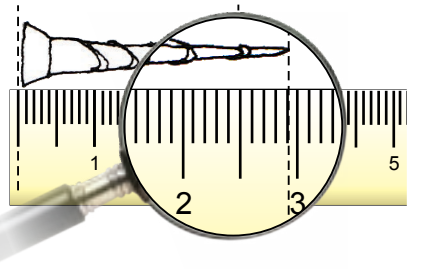
So 30.5 cm is the same as ____ cm and ____ millimetre.

About how many of the big frogs will fit on the 1m scale? _____

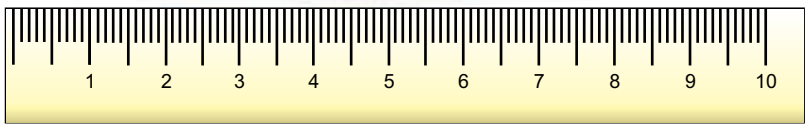
If they sit in a straight line about how many of the small frogs will cover 1m? _____

Practice time

1) Length of the nail is 2 cm and ___ mm or 2. ___ cm.

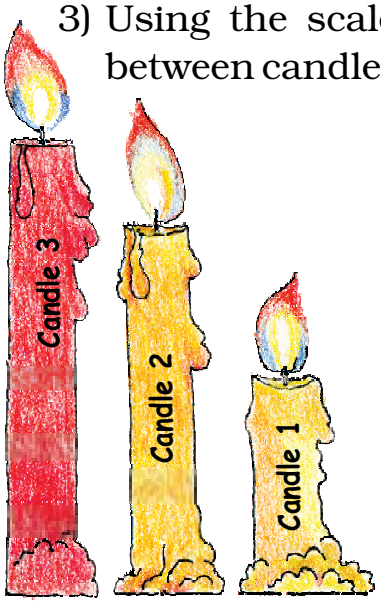


2) 



The length of this lady's finger *(bhindi)* is _____ cm and _____ mm.
We can also write it as _____ cm.

3) Using the scale on this page find the difference in length between candle 1 and candle 3.

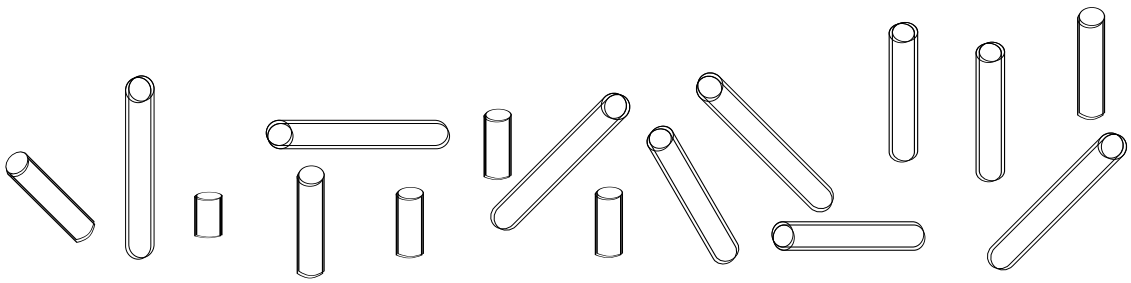


Length of	*Length in cm and mm*	*Length in cm*
Candle 1		
Flame 1		
Candle 2		
Flame 2		
Candle 3		
Flame 3		

Guess and Colour

First colour the rods as shown, without measuring! Then check.

Rods of length less than 1 cm	**Red**
Rods of length between1 cm and 2 cm	**Blue**
Rods of length between 2 cm and 3 cm	**Green**
Rods of length between 3 cm and 4 cm	**Orange**



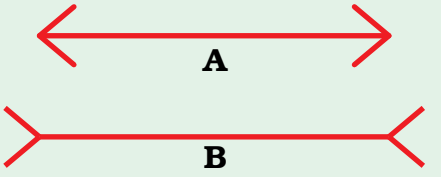
Guess, Draw and Measure

Guess the lengths to draw these things. Ask your friend to draw the same. After you make the drawing use a scale to measure the length. Whose drawing showed a better guess?

Guess its length and draw	*Measure of your drawing*	*Measure of your friend's drawing*
An ant of length less than 1 cm		
Pencil of length about 7 cm		
A glass 11 cm high with water up to 5 cm		
A bangle of perimeter 20 cm		
A curly hair of length 16 cm		

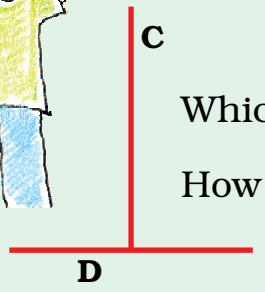
Our Eyes Get Confused?

Which line is longer? A or B ? Measure each line and write how long it is in centimetres. How good is your guess?









Which line is longer? C or D ? Measure each line.

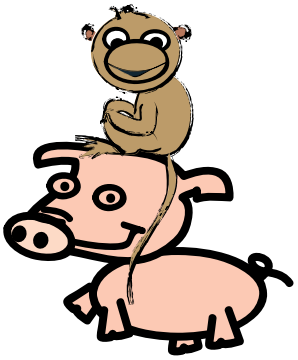
How good is your guess?

Whose Tail is the Longest?





Guess whose tail is the longest. Now measure the tails. How good is your guess?







The Longest Rupee Notes?

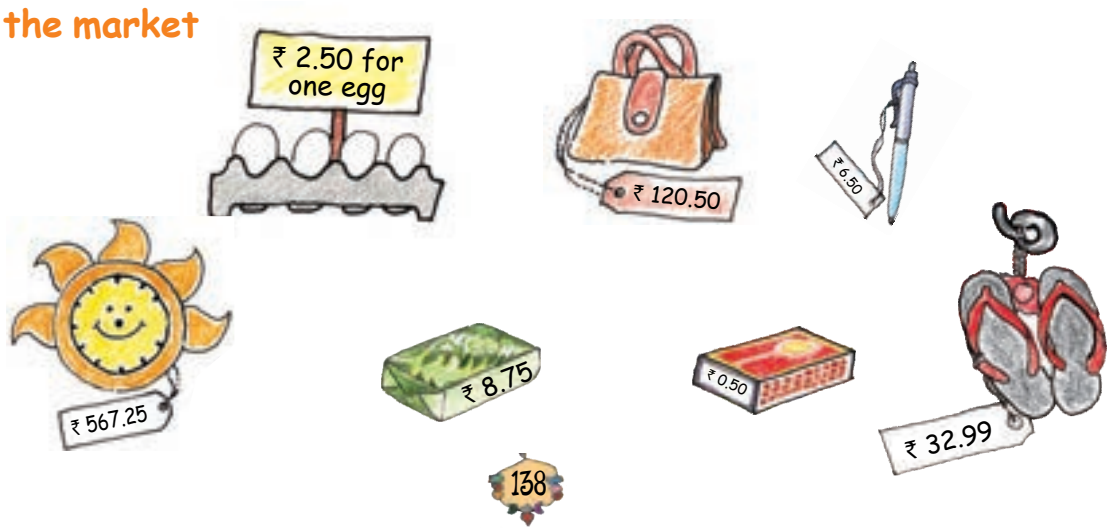


What is the length of a 100 rupee note? Guess. Now measure it using a scale.

Now guess the length and width of many other things. Measure and find the difference between your measure and your guess.

Size of	*Your guess in cm*		*Your measure in cm*	
	length	*width*	*length*	*width*
100 Rupee note				
10 Rupee note				
20 Rupee note				
5 Rupee note				
Post card				
Math-Magic book				

At the market





1) How many paise does a matchbox cost? _____

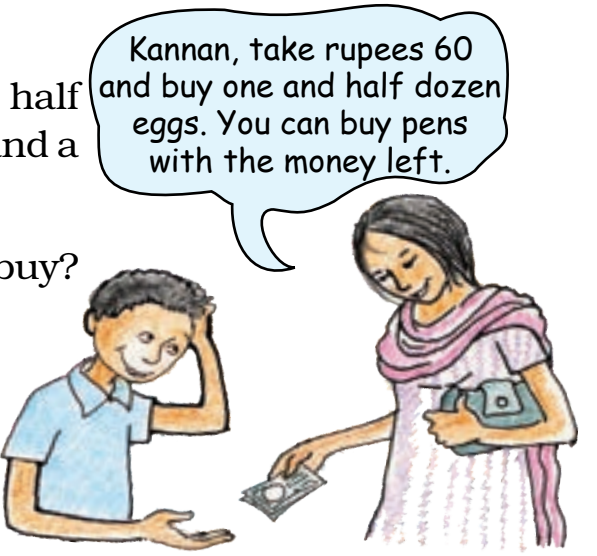
2) How many matchboxes can be got for ₹ 2.50? _____

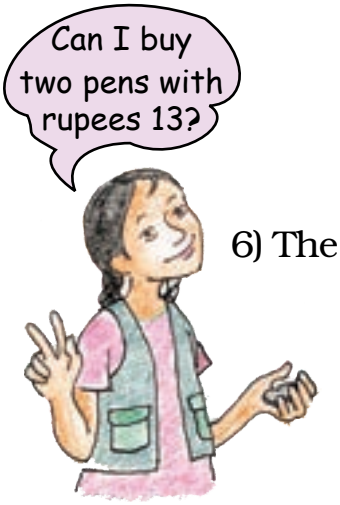
3) How many rupees does the soap cost? _____

4) Arun wanted to buy a soap. He has a five-rupee coin, 2 one-rupee coins and 4 half-rupee coins. Write in rupees what money he will get back.

5a) An egg costs two and a half rupees. How much will one and a half dozen cost?

b) How many pens can Kannan buy? How much money is left?





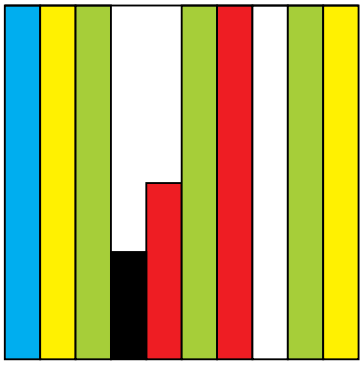
6) The price of two pens is ₹ _____. Can she buy two pens?

Practice time — Match these

Match each yellow box with one green and one pink box.

Rupee $\frac{1}{2}$	5 paise	Rupee 0.75
Rupee $\frac{1}{10}$	25 paise	Rupee 0.50
Rupee $\frac{5}{100}$	99 paise	Rupee 0.05
Rupee $\frac{3}{4}$	50 paise	Rupee 0.10
Rupee $\frac{99}{100}$	75 paise	Rupee 0.25
Rupee $\frac{1}{4}$	10 paise	Rupee 0.99

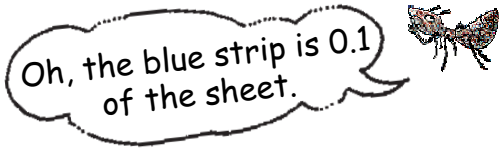
Colourful Design



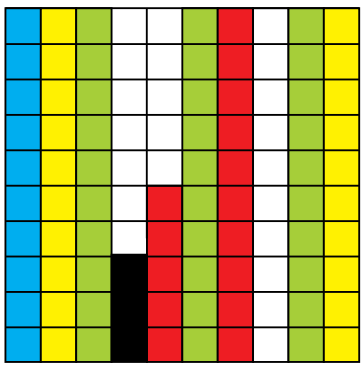
What part of this sheet is coloured blue? ___/10

What part of the sheet is green? _____

Which colour covers 0.2 of the sheet?



Now look at the second sheet. Each strip is divided into 10 equal boxes. How many boxes are there in all?



Is each box 1/100 part of the sheet?

How many blue boxes are there? _____

Is blue equal to 10/100 of the sheet? We saw that blue is also equal to 1/10 of the sheet. We wrote it as 0.1 of the sheet.

Can we say 10/100 = 1/10 = 0.10 = 0.1?

Think: Can we write ten paise as 0.1 of a rupee?

How many boxes are red? What part of the sheet is this? 15/____

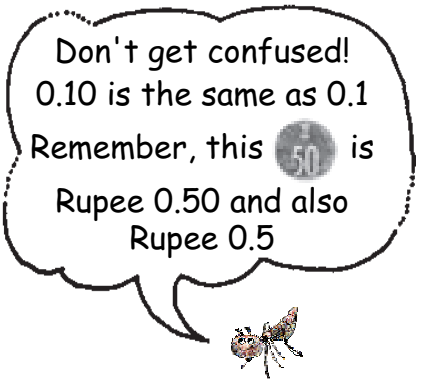
Can we also write it as 0.15 of the sheet ?

(***Hint:*** *remember we wrote 99 paise as 0.99 rupee!)*

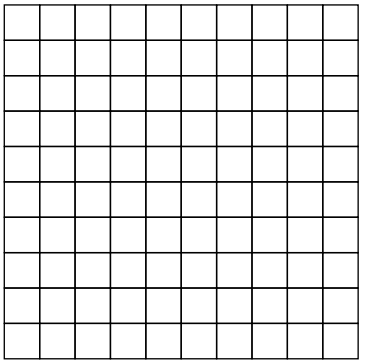
Now 3/100 of the sheet is black. We can say 0.____ sheet is black.

How many white boxes are there in the sheet?

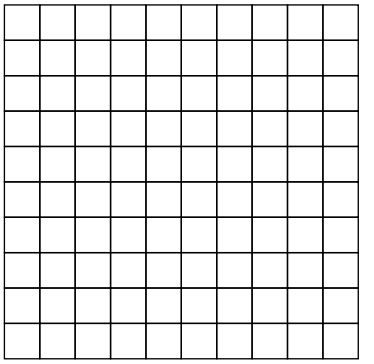
What part of the second sheet is white? ____



❊ Make your designs.



Make a nice design by colouring 0.45 part of this square red.



Use four colours. Each colour should cover 0.05 of this square.

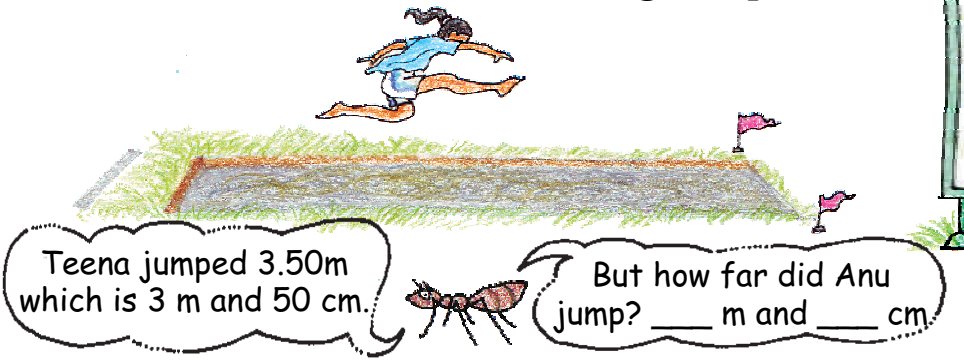
Sports Day

The school at Malappuram has its sports day.

The first five children in the Long Jump are:



Teena	3.50 m
Meena	4.05 m
Rehana	4.50 m
Anu	3.05 m
Amina	3.35 m



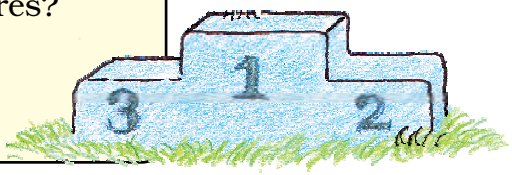
Who is the winner in the long jump? _____

Write the names of the I, II and III winners on this stand.

Do you remember that 1 metre = 100 centimetres?

So one centimetre is 1/100 of a metre.

We also write 1 cm as _____ m



Write in Metres

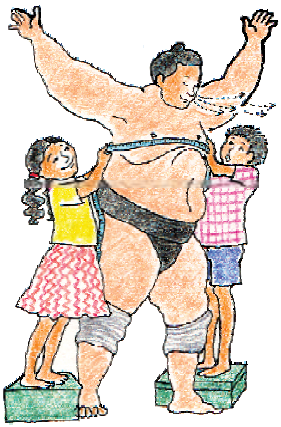
3 metre 45 centimetre ☐ metres

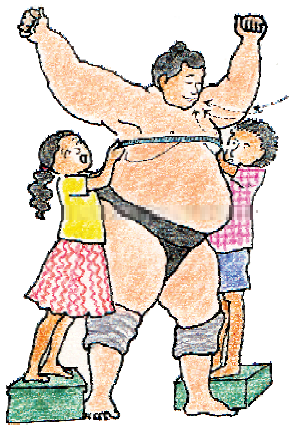
99 centimetre ☐ metres

1 metre and 5 centimetre ☐ metres

How Big Can You Get

A)





After breathing out 1.52 m

On taking a deep breath 1.82 m

Difference in size ☐

Do this for yourself and find the difference.

B)

You have to grow 45 cm more to reach 2 m height



What is Dinesh's height in metres?

_____ m _____ cm.

Practice time

1) Currency from different countries

Have you seen any notes or coins used in any other country?

Shivam Bank has a chart to show us how many Indian rupees we can get when we change the money of different countries.

Country	*Money*	*Changed into Indian Rupees*
Korea	Won	0.04
Sri Lanka	Rupee (LKR)	0.37
Nepal	Rupee (NPR)	0.63
Hong Kong	Dollar (HKD)	5.10
South Africa	Rand	5.18
China	Yuan	5.50
U.A.E.	Dirham	10.80
U.S.A.	Dollar	39.70
Germany	Euro	58.30
England	Pound	77.76



(This is the rate on 15-2-2008)

A) The currency of which country will cost the most in Indian Rupees?

B) Mithun's uncle in America had sent him 10 USA dollars as a gift. Mithun used 350 rupees for a school trip. How much money was left with him?



Children are not expected to carry out long multiplication involving decimals. Instead, encourage them to think in terms of currency. For example, 75 paise × 2 can be thought of as two 50 paisa coins and two 25 paisa coins.

C) Majeed's father is working in U.A.E. He gets 1000 Dirham as salary. Arun's father who is working in Sri Lanka gets 2000 Sri Lankan Rupees. Who gets more Indian rupees as salary?

D) Leena's aunty brought a present for her from China. It cost 30 Yuan. Find what it costs in Indian rupees.



E) Astha wants some Hong Kong Dollars and Won.

1) How many Won can she change for ₹ 4? For ₹ 400?

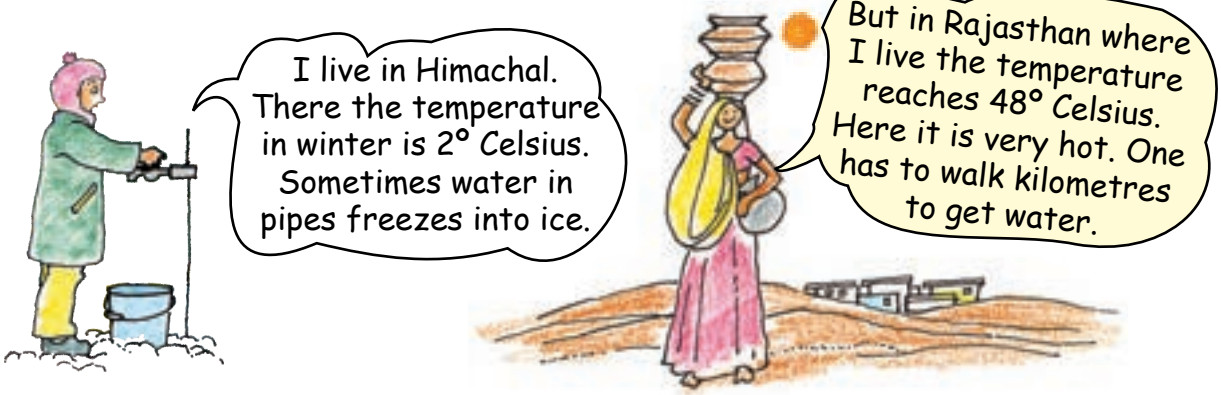
2) How many Hong Kong Dollars can she change for ₹ 508?

2) Kiran went shopping with ₹ 200. Look at the bill. The shopkeeper forgot to put the point correctly in the prices. Put the point in the correct place and find out the total amount of the bill.



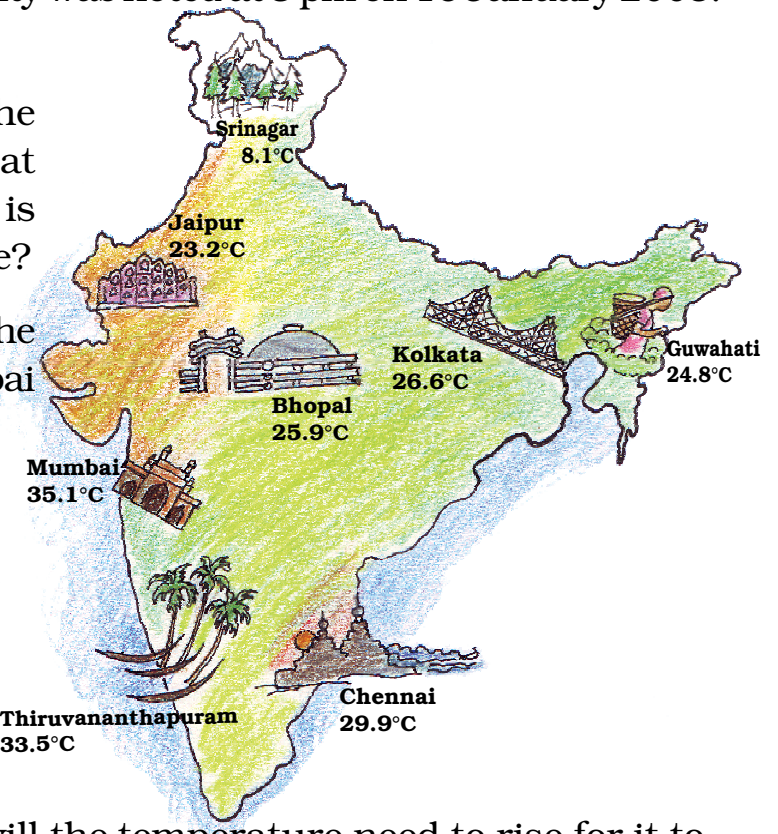
Item	*Quantity*	*Price (Rupees)*
Soap	1	1250
Green gram	1 kg	5025
Tea	250 gm	2725
Coconut Oil	1 Litre	6000
	Total	_____

3) *Which city is cool?*



Children can be encouraged to look at temperatures (in degree Celsius or °C) of different cities in the newspaper and on TV. Without using the terms 'maximum' and 'minimum' this exercise will give them an idea that temperatures can be measured at two different times of the day. Only simple subtractions using decimals have been used here. They will also get familiar with the names of different capital cities and can do similar exercises for the capital cities of other countries.

The temperature in each city was noted at 3 pm on 16 January 2008.



1) Which place had the highest temperature at 3 pm? Which place is the coolest at that time?

2) How much higher is the temperature in Mumbai from that in Srinagar?

3) How many degrees will the temperature need to rise for it to reach 40° C in Thiruvananthapuram?

4) How much lower is the temperature of Kolkata from that in Chennai?

5) The temperature in these cities was also noted at 3 am on the same day. Look at the table and answer the questions.

City	*Temperature at 3 am*
Chennai	21.1
Mumbai	19.0
Th'puram	21.6
Kolkata	13.1
Bhopal	9.8
Srinagar	1.3
Guwahati	12.8
Jaipur	10.2

a) Which place had the lowest temperature at 3 am? Imagine yourself to be there and describe how it would feel.

b) What is the difference between the temperatures at 3 pm and 3 am in Chennai? In Bhopal?