

Alavi

Mathematics

Learner's Book

1

Compiled by:

Farahnaz Fayaz, Somayeh Babaei, Mahdieh Sepasi
and Seyedeh Farideh Saneie



Book Title/ Compiler: Mathematics Learner's Book (1) [Book] / compiled Farahnaz Fayaz... [et al.]

Print Year: 2021

Trim Size/ No. of Pages: 29 × 22/ 44

ISBN: 978-964-169-898-2

Category: FIPA

Language: English

Compiled by: Farahnaz Fayaz, Somayeh Babaee, Mahdieh Sepasi, Seyedeh Farideh Saneie

Topic: English language -- Study and Teaching (Elementary)

Library of Congress Classification: PE 1065

Dewey Decimal Classification: 24/428

National Bibliography Number (NBN): 8691845

Book Title: Primary Mathematics Learner's Book (1)

Compiled by: Farahnaz Fayaz, Somayeh Babaee, Mahdieh Sepasi
and Seyedeh Farideh Saneie

Publishing Manager: Ali Mojtahedin

Print Run: 1000

Imprint: Alavi Farhikhteh

Graphic Designer: Javad Mahmoudi

Book Cover Designer: Hanieh Ferasat

Lithography: Ariofoam

ISBN: 978-964-169-898-2



www.alavi.ir



pub@alavi.ir



021-64027270

Alavi Farhikhteh: No. 19, Mirmotahari st. Tehran, Iran

021-22892550



All rights of this work belong to Alavi (Farhikhteh) Publications and any copying and copying in any form and method can be prosecuted according to paragraph 5 of Article 2 of the Publisher Protection Law.



Introduction

The Primary Mathematics brings together the world-class Cambridge Primary mathematics curriculum from Cambridge International Examinations. It is an innovative combination of curriculum and resources designed to support teachers and learners to success in primary mathematics through best-practice international maths teaching and a problem-solving approach.

The Cambridge curriculum is dedicated to helping schools develop learners who are confident, responsible, reflective, innovative and engaged. To this end, the textbooks provide support based on pedagogical practice found in successful schools around the world. This series is arranged to ensure that the curriculum is covered whilst allowing teachers to use a flexible approach.





Table of Contents



5



15



27



37



CHAPTER
1



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
1.1. Ordering sizes	identify the size of the object.
1.2. How many?	learn to count from 1 to 10.
1.3. Giant footprints	learn when an object is shorter/ longer than another.
1.4. What is the shape?	identify the shape of an object.
1.5. Toy cupboard	identify the digits 1 to 10.

Word bank

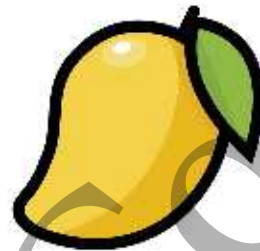
1	size	2	big	3	medium	4	small	5	how many
6	count	7	one	8	two	9	three	10	four
11	five	12	six	13	seven	14	eight	15	nine
16	ten	17	short	18	long	19	shorter	20	longer
21	shape	22	circle	23	square	24	rectangle	25	triangle

* 1.1. Ordering sizes

Compare the sizes of fruits.

Write 1 under the big size, 2 under the medium size and 3 under the small size.

1)



2)



3)



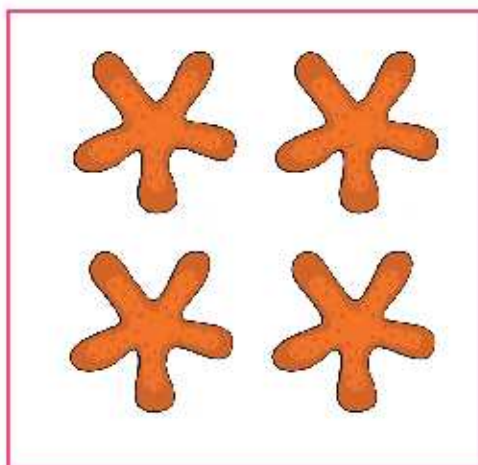
4)



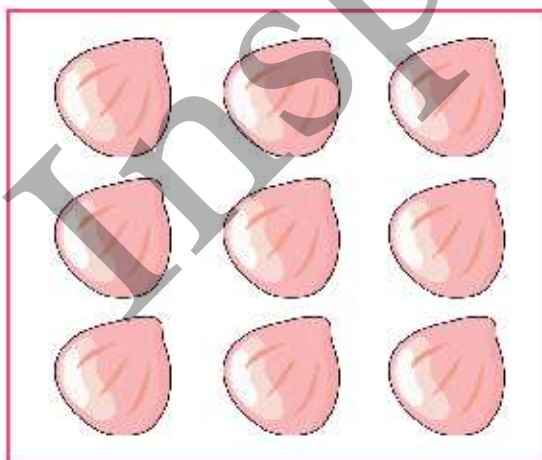
✱ 1.2. How many?

How many in each group?









Look and learn



Count.



* 1.3. Giant footprints

The kids are measuring the size of their footprints, but there is one giant footprint!



How long is your footprint?

How long is the giant's footprint?



Dough worms

Remember

Line up both objects so that they start from the same place.

Roll your dough into worms.
Make a longer worm than this one.



Draw around your worm.

You will need: play dough.

Look and learn

longer



shorter

Make a shorter worm than this one.



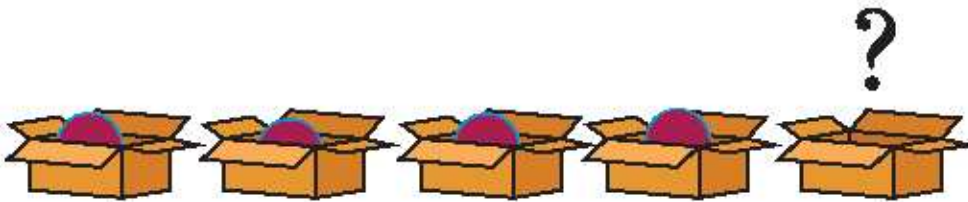
Draw around your worm.

Compare your worms with a partner's worms.

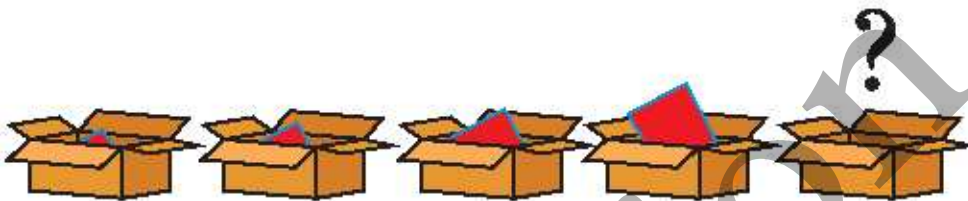
* 1.4. What is the shape?

Shapes

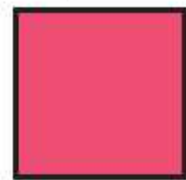
Look and guess the shape.



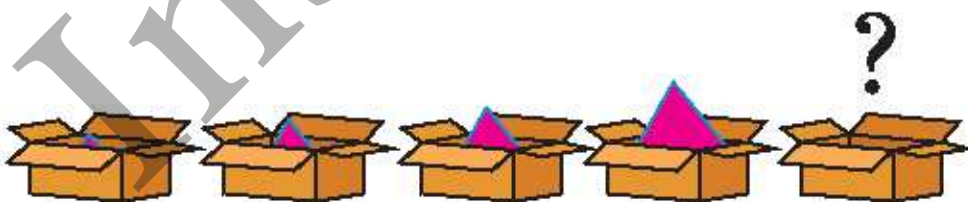
circle



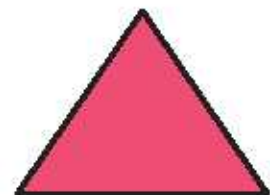
square



rectangle



triangle



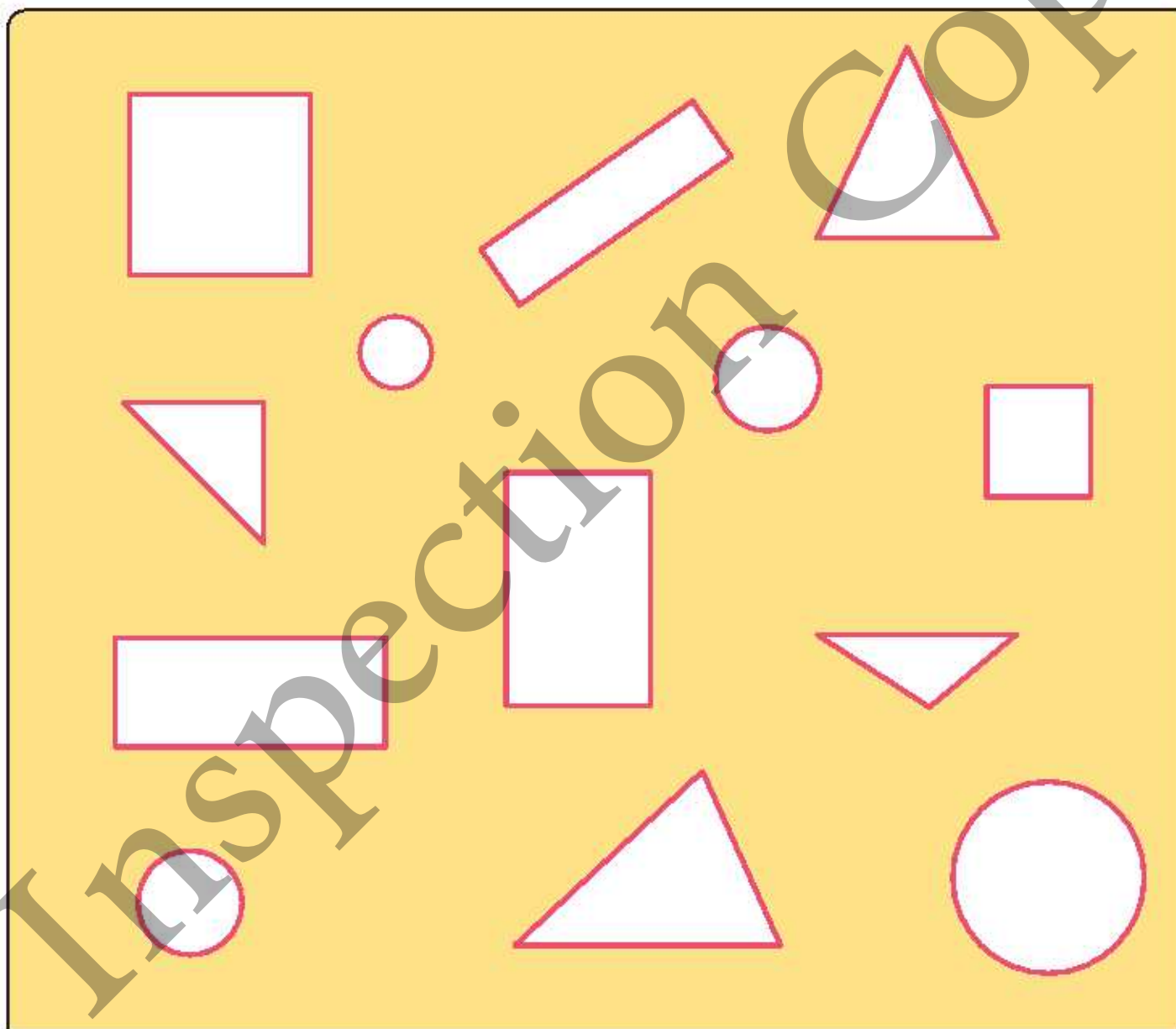
What's left?

Tick (✓) each triangle.

Cross (✗) each square.

Colour each circle.

Which shape is left?

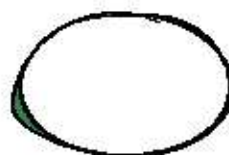
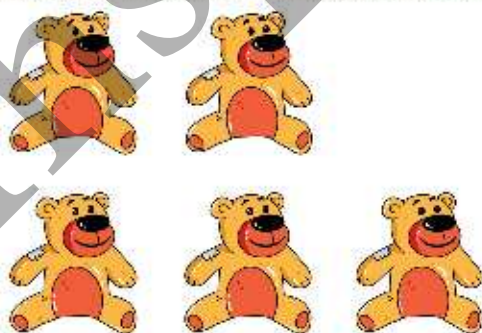
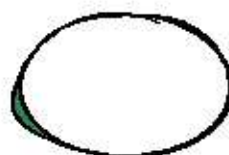
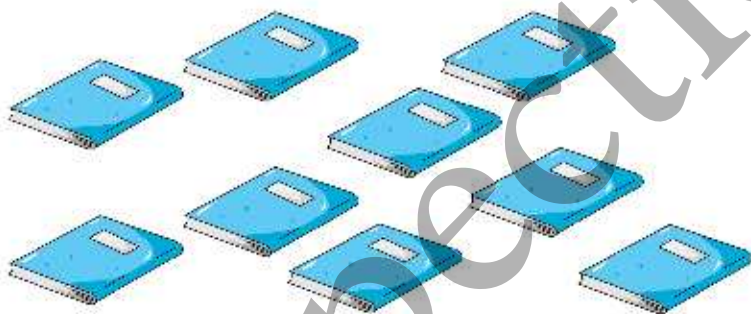
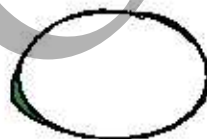
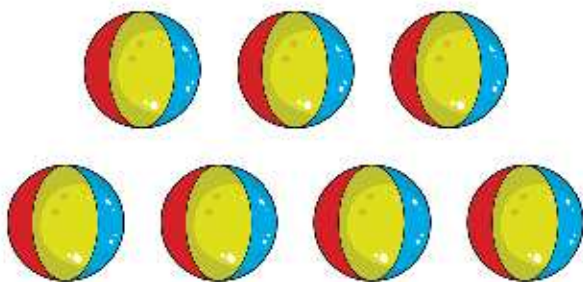


* 1.5. Toy cupboard

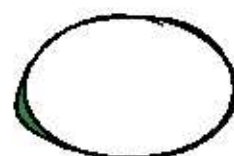
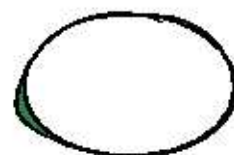
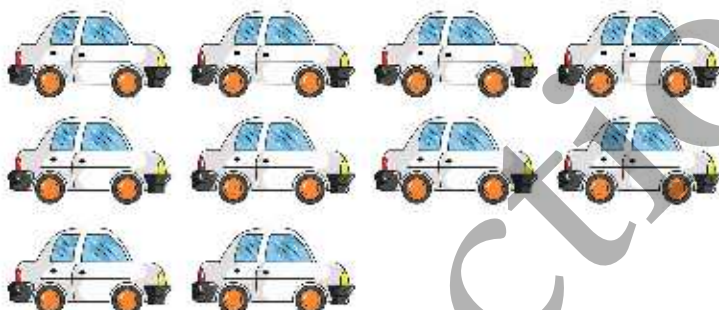
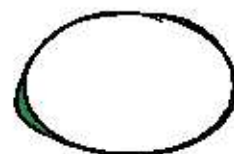
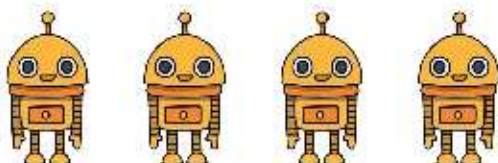
Remember

When you are counting, the numbers are always in the same order.

Count. Write how many.



Primary Mathematics



0 1 2 3 4 5 6 7 8 9 10

CHAPTER
2



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
2.1. 11 to 20	learn numbers 11 to 20 and place value of 2-digit numbers.
2.2. Estimating	learn to guess the numbers.
2.3. Find the secret number	count in 10s.
2.4. Weight comparison	identify heavy and light objects.
2.5. Full and empty	identify when a container is full.

Word bank

1	eleven	2	twelve	3	thirteen	4	fourteen	5	fifteen
6	sixteen	7	seventeen	8	eighteen	9	nineteen	10	twenty
11	tens	12	ones	13	guess	14	count	15	fewer than
16	more than	17	thirty	18	forty	19	fifty	20	sixty
21	seventy	22	eighty	23	ninety	24	one hundred	25	heavy
26	light	27	heavier than	28	lighter than	29	full	30	empty
31	nearly full	32	nearly empty						


2.1. 11 to 20 again

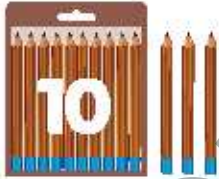
Remember

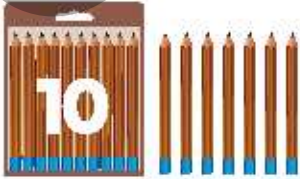
Two-digit numbers are made up of tens and ones.

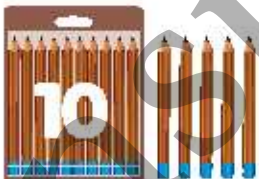
Write how many tens and how many ones.


Write the number.

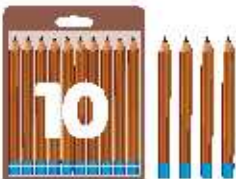
	
tens	ones

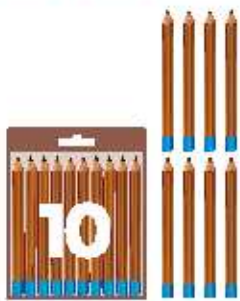
	
tens	ones

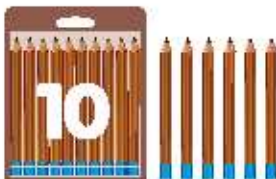
	
tens	ones


	
tens	ones


	
tens	ones

	
tens	ones

	
tens	ones

	
tens	ones

	
tens	ones

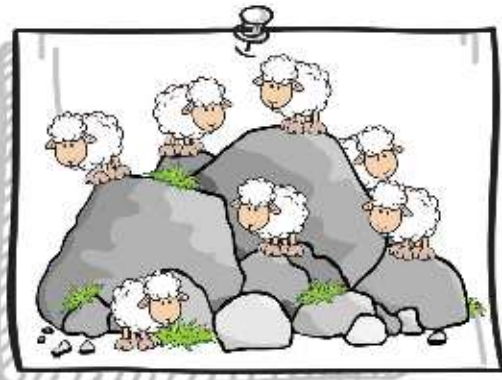
	
tens	ones

* 2.2. Estimating

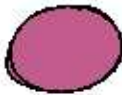
Remember

An estimate does not have to be the right answer.

Guess how many     before you count.



Guess



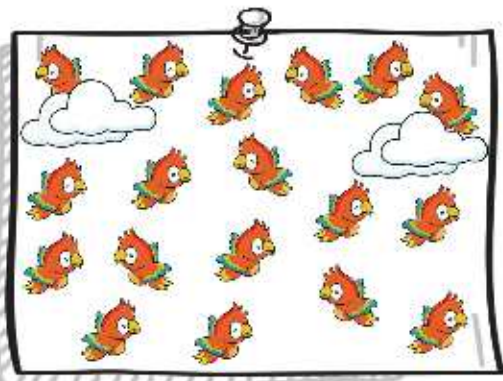
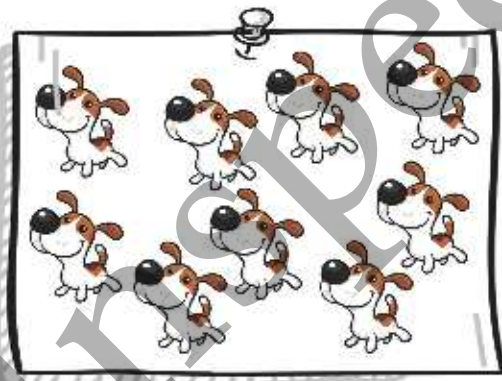
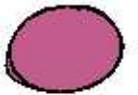
Count



Guess



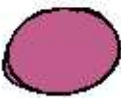
Count



Guess



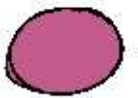
Count



Guess



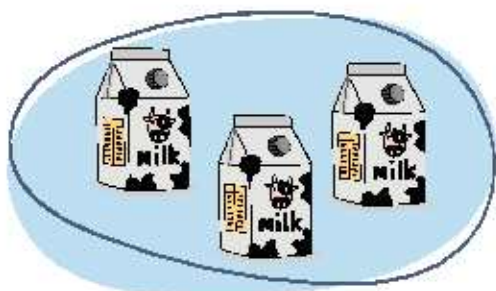
Count



Estimate how many

Tick the box that matches your estimate.

Then count and write how many.



fewer than 10

☐

more than 10

☒

Count



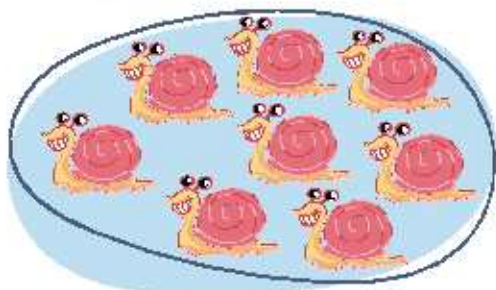
fewer than 10

☐

more than 10

☐

Count



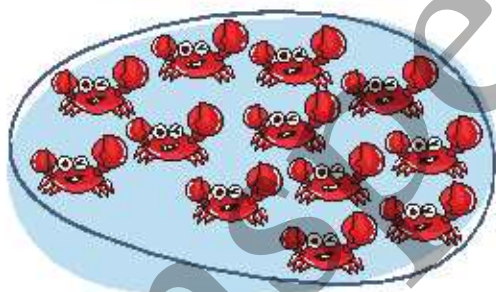
fewer than 10

☐

more than 10

☐

Count



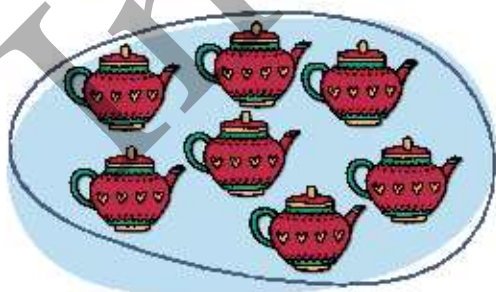
fewer than 10

☐

more than 10

☐

Count



fewer than 10

☐

more than 10

☐

Count



* 2.3. Find the secret number

Remember

Tens numbers have zero in the ones place.

Count in tens to find the tens number between the other two numbers.
Write the tens number in the box.

It is not 80, 90, .

It is not 40, , 60.

It is not 0, , 20.

It is not 70, , 90.

It is not 20, , 40.

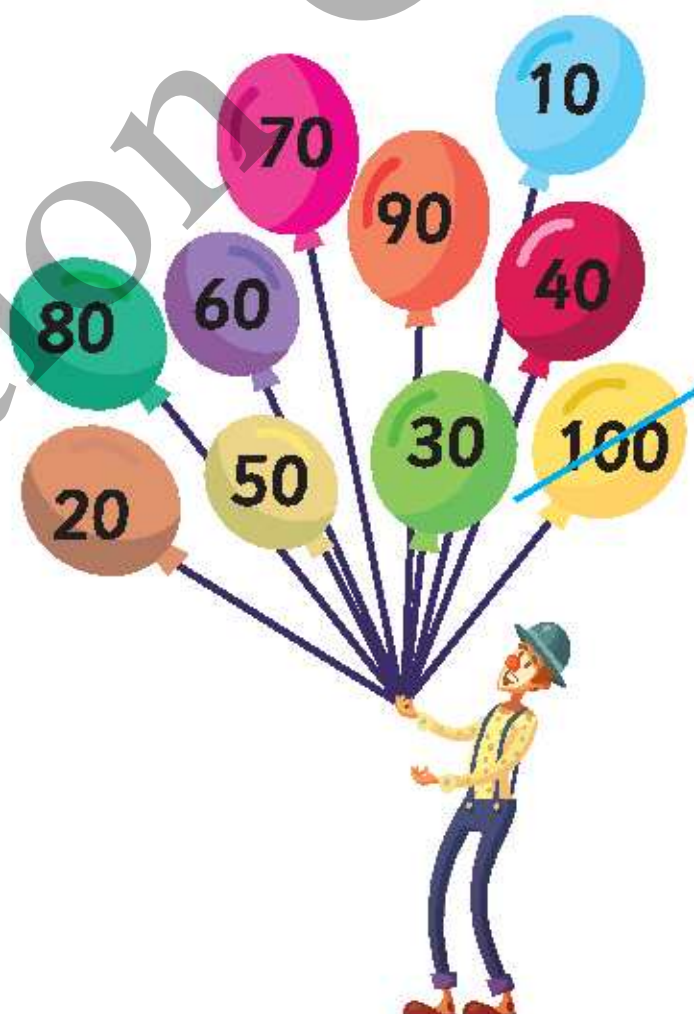
It is not 80, , 100.

It is not 10, , 30.

It is not 30, , 50.

It is not 60, , 80.

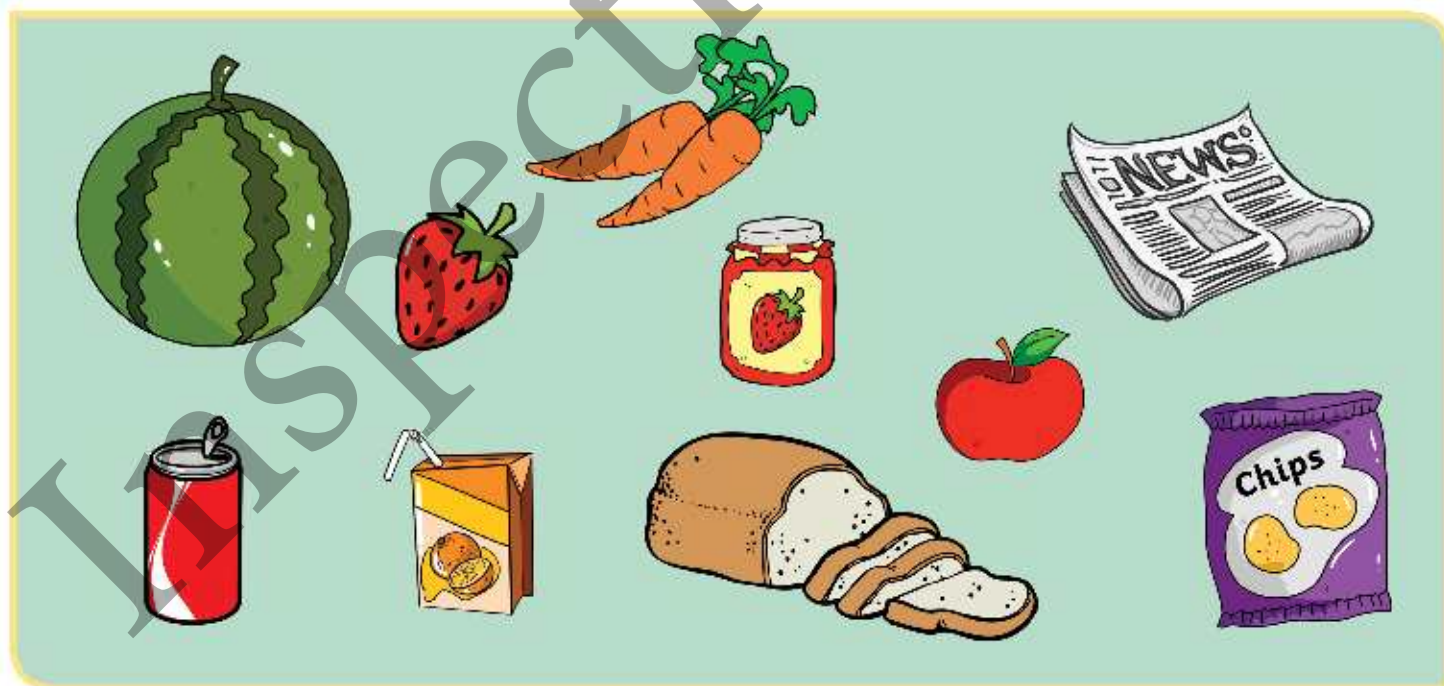
The secret number is .



* 2.4. Weight comparison



Where would you place these? Heavy or light?



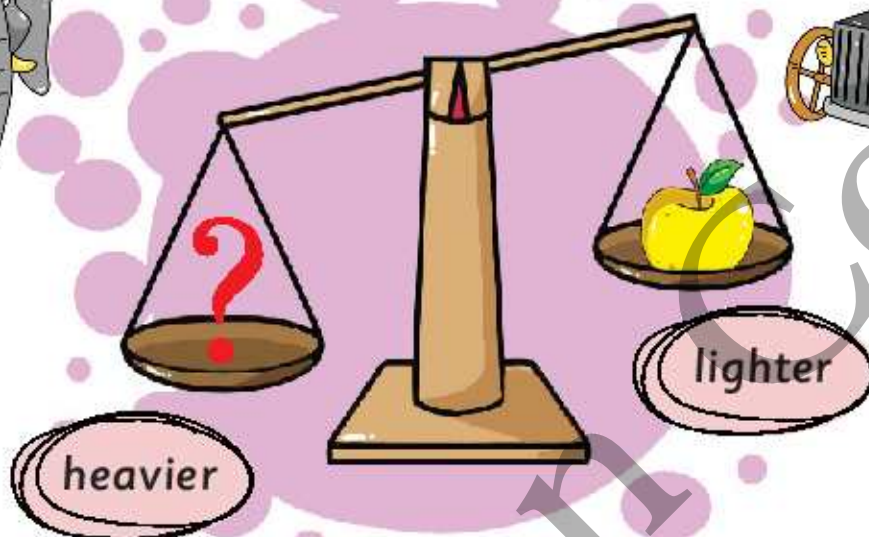
Find more things to weigh.

Heavier and lighter



Heavier than, lighter than

What is heavier than the apple?



What is lighter than the apple?



Light or heavy

Remember

Heavier objects press down more than lighter objects.

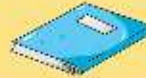
Find three objects that are lighter than a book.
Find three objects that are heavier than a book.
Draw them in the table.

Hint: Use the same book each time.

lighter than



heavier than



Full or empty?

Remember

When a container is empty, there is none left.

When a container is full, you cannot get any more in.

Draw a line from each container to the matching label.



full



empty



nearly full



nearly empty



Hint: Pour a little out of a full container to make it nearly full. Add a little to an empty container to make it nearly empty.

CHAPTER
3



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:

Topic	In this topic, learners will:
3.1. Clocks	learn to tell the time.
3.2. What time?	expalin what they do in a day and when.
3.3. Height	identify when an object is taller/ shorter than another.

Word bank

1	clock	2	o'clock	3	what time	4	at	5	get up
6	have breakfast	7	have lunch	8	play	9	tall	10	short
11	taller	12	shorter						

* 3.1. Clocks

What time is it?



one o'clock



two o'clock



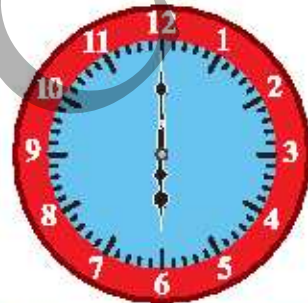
three o'clock



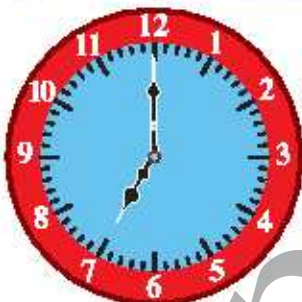
four o'clock



five o'clock



six o'clock



seven o'clock



eight o'clock



nine o'clock



ten o'clock



11 o'clock



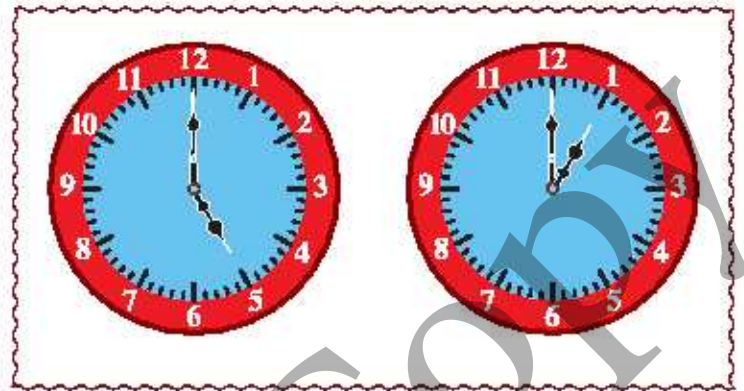
12 o'clock



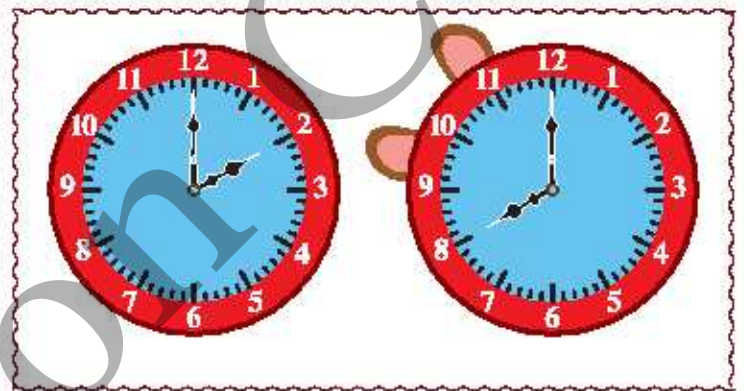
Hickory, dickory, dock

Join in with the rhyme. Circle the clock that matches the verse.

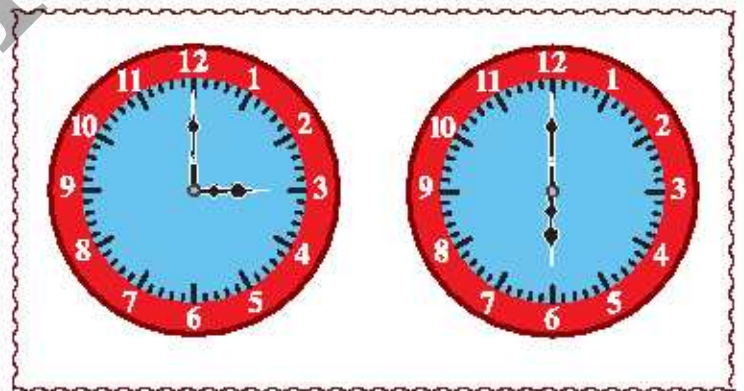
Hickory, dickory, dock.
The mouse ran up the clock.
The clock struck one,
The mouse ran down,
Hickory, dickory, dock.



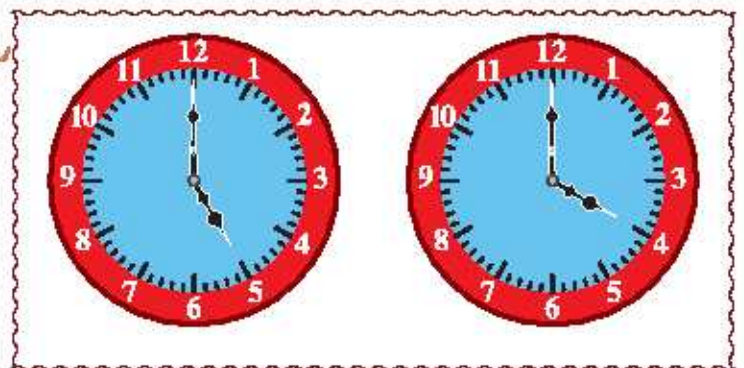
Hickory, dickory, dock.
The mouse ran up the clock.
The clock struck two,
The mouse lost a shoe,
Hickory, dickory, dock.



Hickory, dickory, dock.
The mouse ran up the clock.
The clock struck three,
The mouse climbed a tree,
Hickory, dickory, dock.



Hickory, dickory, dock.
The mouse ran up the clock.
The clock struck four,
He ran out of the door,
Hickory, dickory, dock.



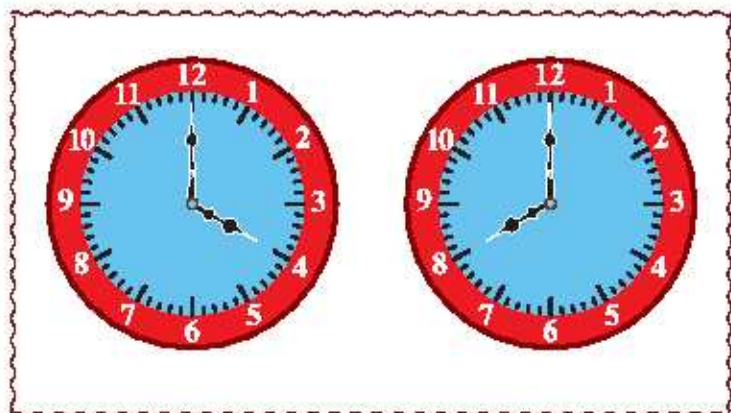
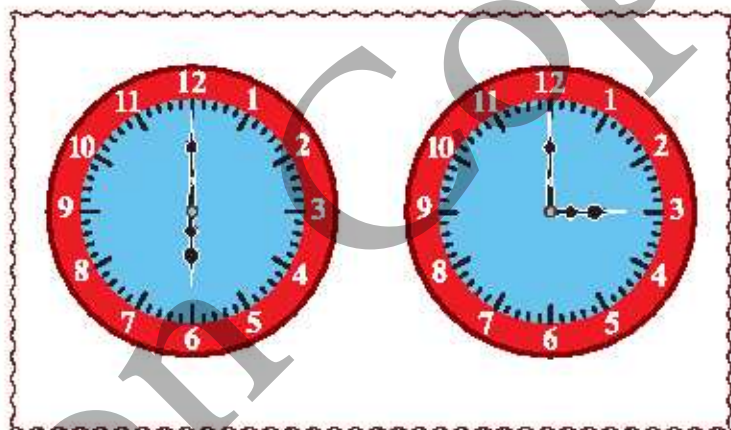
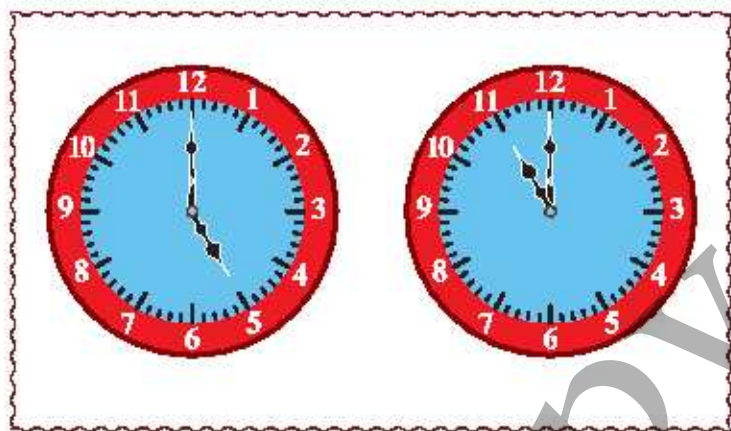
Hickory, dickory, dock.
 The mouse ran up the clock.
 The clock struck five,
 Look, bees from the hive!
 Hickory, dickory, dock.



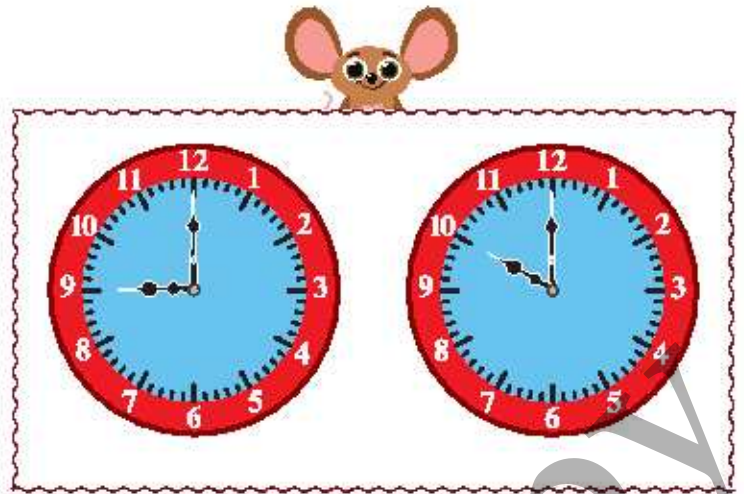
Hickory, dickory, dock.
 The mouse ran up the clock.
 The clock struck six,
 Oh fiddle-sticks!
 Hickory, dickory, dock.

Hickory, dickory, dock.
 The mouse ran up the clock.
 The clock struck seven,
 The cat tried to get him.
 Hickory, dickory, dock.

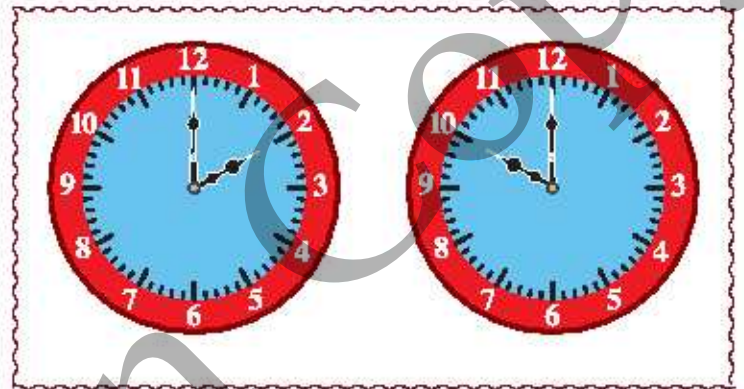
Hickory, dickory, dock.
 The mouse ran up the clock.
 The clock struck eight,
 He's going to be late,
 Hickory, dickory, dock.




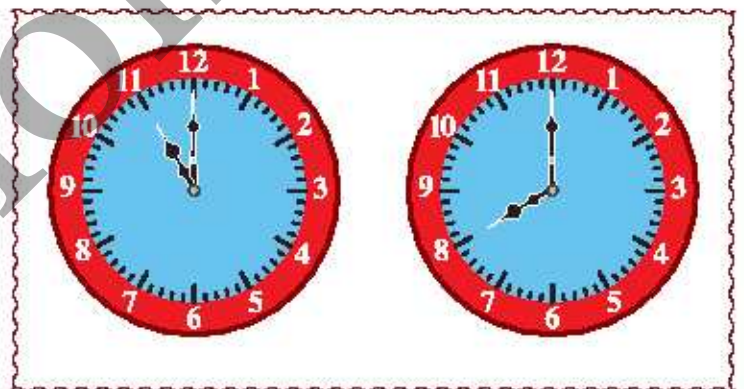
Hickory, dickory, dock.
The mouse ran up the clock.
The clock struck nine,
The time's just fine,
Hickory, dickory, dock.



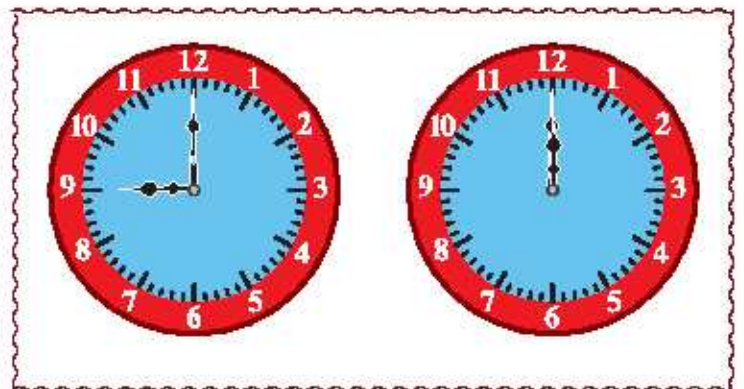
Hickory, dickory, dock.
The mouse ran up the clock.
The clock struck ten,
Again and again!
Hickory, dickory, dock.



Hickory, dickory, dock.
The  ran up the clock.
The clock struck eleven,
Four more than seven,
Hickory, dickory, dock.



Hickory, dickory, dock.
The mouse ran up the clock.
The clock struck noon,
We'll be home soon,
Hickory, dickory, dock.



* 3.2. What time?

What do you do in a day?

You will need to think about what time you get up, and what you do next.

Use the pictures to help you.



I get up at o'clock.



I have breakfast at o'clock.



I play at o'clock.



I have lunch at o'clock.

* 3.3. Height

Which is **shorter**? The ice cream or the boy?



Which is **taller**? The lady or the building?



How tall?

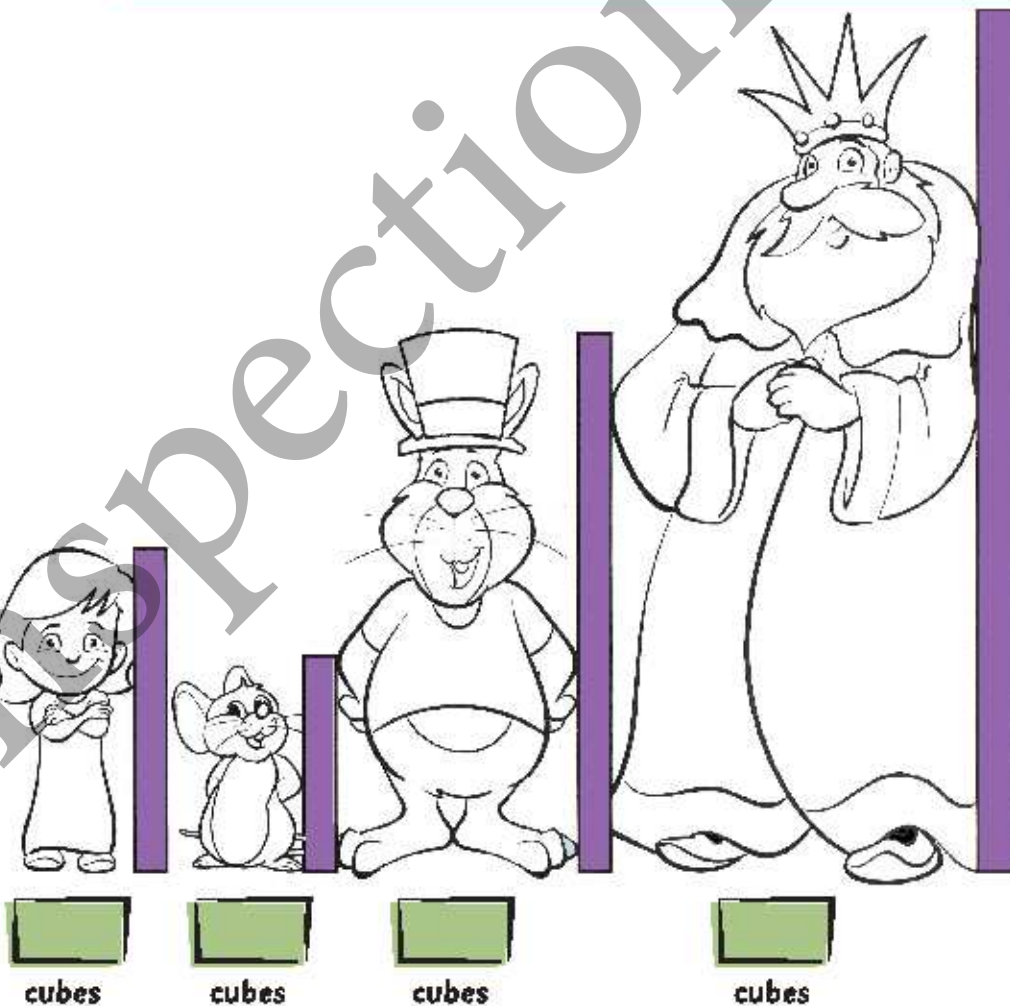
Remember

You measure height and length in the same way.
Line up objects at the same starting point to compare them.

Use cubes to measure the height of each character.
Who is taller than the girl? Colour their feet.
Who is shorter than the rabbit? Colour their ears.

You will need:

2 centimetre interlocking cubes, colouring pencils.



How tall are you?



CHAPTER
4



What learners will learn and reinforce

The activities in this chapter give learners practice in the following topics:






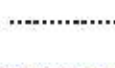

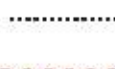


Topic	In this topic, learners will:
4.1. More and fewer	learn the concept of addition and subtraction.
4.2. Explore addition	write addition number sentences.
4.3. Explore subtraction	write subtraction number sentences.

Word bank

1	more	2	fewer	3	add	4	plus	5	minus
6	equal	7	in all	8	left	9	cross out		

4.1. More and fewer

Use 


	Write how many:	Make a train with:	Write how many now:
1)		1 more	
			
2)		2 fewer	
			
3)		2 more	
			
4)		1 fewer	
			
5)		2 fewer	
			

Circle the number that is 2 more than 3.

3	5	6	1
---	---	---	---

✱ 4.2. Explore addition

Solve each problem.

1) There are 3 .

2 more  come.

How many in all?


..... and is

2) There are 6 .

2 more  come.

How many in all?

..... and is

3) There are 5 .

4 more  come.

How many in all?

..... and is

4) There are 5 brothers and 3 sisters.

How many in all?

..... and is

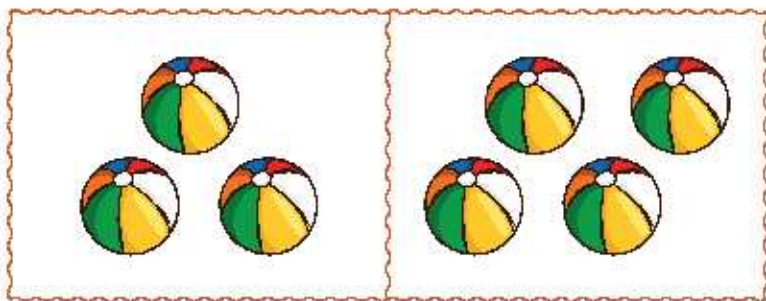
Draw a picture. Tell a math's story about the picture.

.....

Show addition

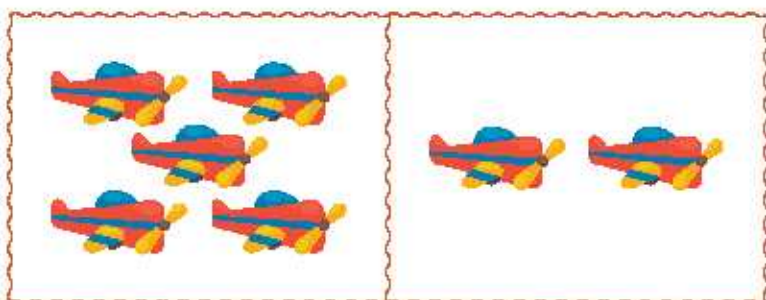
Write the number sentence.

1)



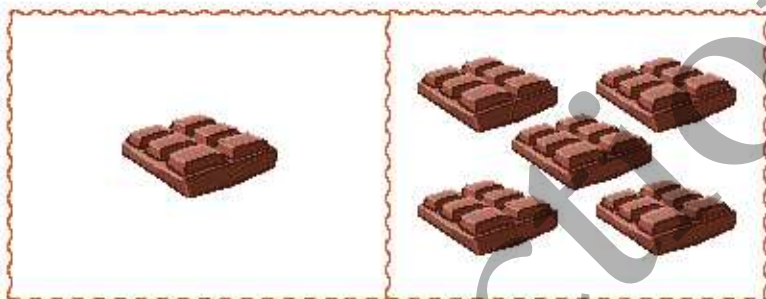
$$3 + 4 = 7$$

2)



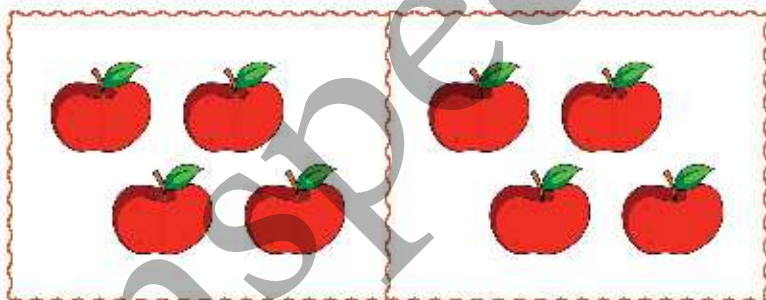
$$5 + 2 = 7$$

3)



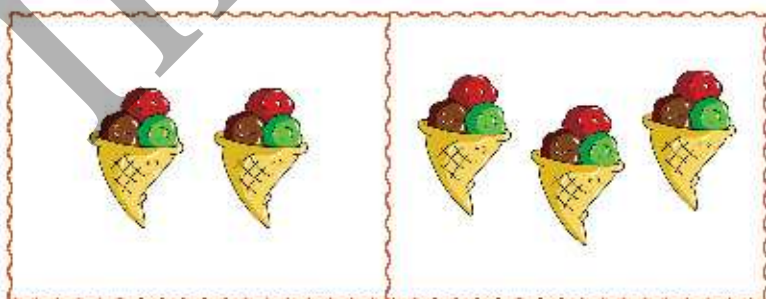
$$1 + 4 = 5$$

4)



$$4 + 4 = 8$$

5)



$$2 + 3 = 5$$

✱ 4.3. Explore subtraction

Write the number sentence.

1) There are 8  on the farm. 2) There are 5  on the farm.

6  run away.



How many are left?

..... - = are left.

2  run away.

How many are left?

..... - = are left.

3) There are 9  on the farm. 4) There are 4  on the farm.

3  run away.

How many are left?

..... - = are left.

2  run away.

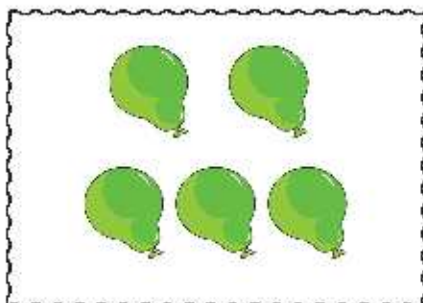
How many are left?

..... - = are left.

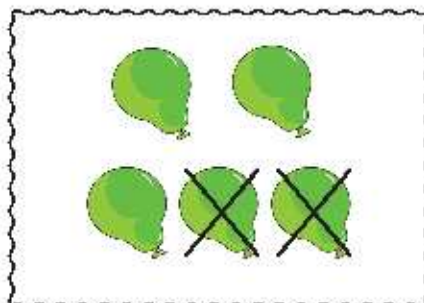
Draw a picture. Tell a math's story about the picture.

Blank area for drawing and writing a math story.

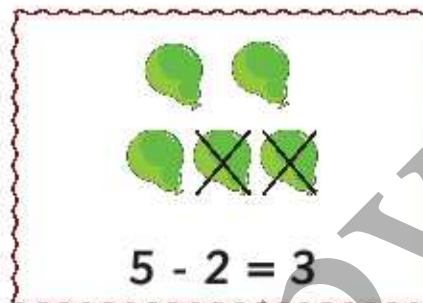
Show subtraction



Show how many.



Cross out to subtract.

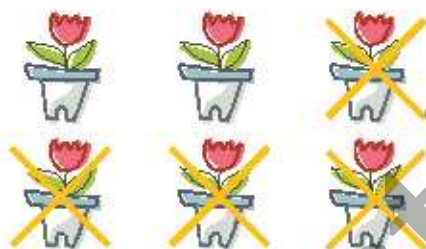


$$5 - 2 = 3$$

Write the number sentence.

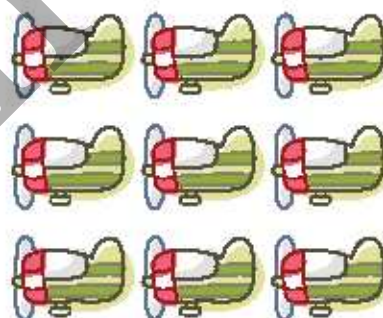
Cross out. Subtract.

1)



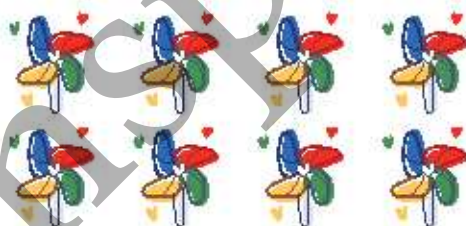
$$6 - 4 = 2$$

2)



$$9 - 4 = \dots\dots$$

3)

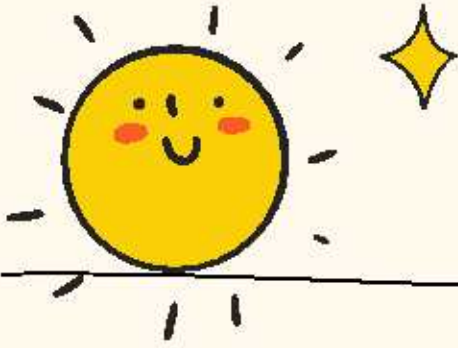


$$8 - 7 = \dots\dots$$

4)



$$9 - 3 = \dots\dots$$



Inspection Copy