CAPS

maskew miller learning

GRADE 1 LEARNER'S BOOK

Platinum Mathematics

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Platinum Mathematics Grade 1 Learner's Book

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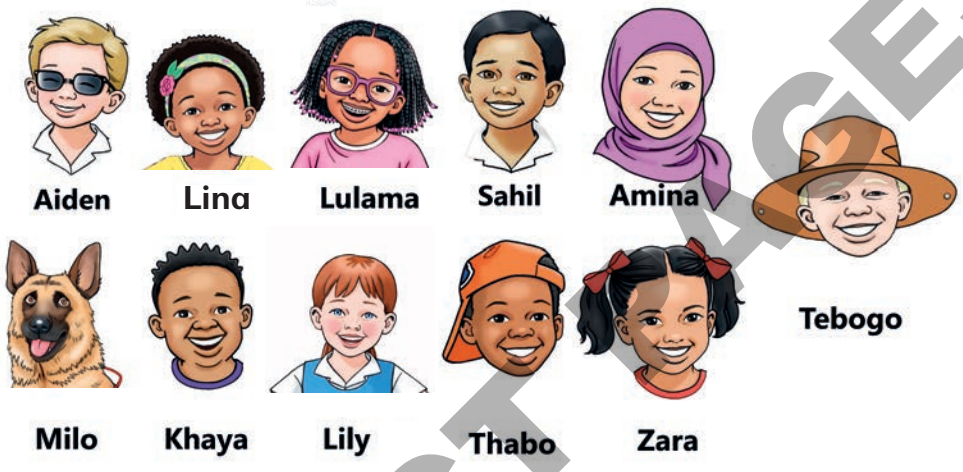
Welcome

Dear Learner,

Welcome to this exciting book, where you will meet amazing characters. Each character is special in their own way, and so are you!



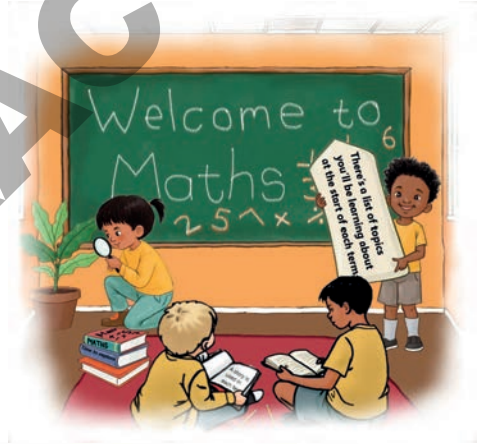
Check-up test

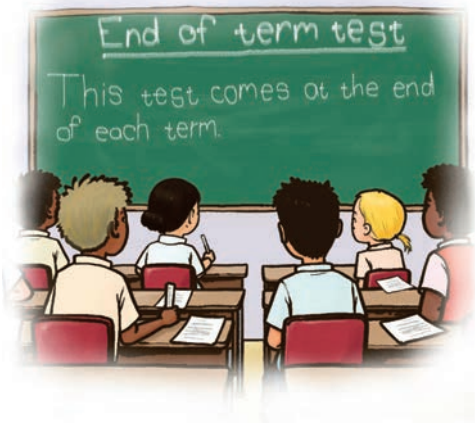
Let us see what you know.

5 + 3 = ?

2 + 4 = ?

3 – 1 = ?





Learn new words in the special blocks throughout this book.

How to use this book

New vocabulary terms, use simple language and clear visual to reinforce each concept.

Pair activity: We work with a friend on a short problem or task.

Oral activity: A class discussion or oral quiz.

Check-up and End-of-term test: This test comes at the end of each term.

Features for activities

Group activity: Group-work task that involves hands-on practical work.

Practical activity: As hands-on activity.

Writing activity: An icon we use to write in our activity books.

Get ready to learn, play and create with your friends.

Happy learning!

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Term 4

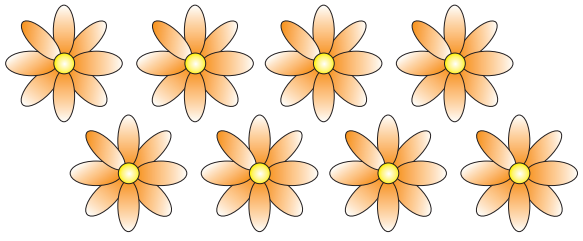
Term 1: The world of numbers!

Topics to be covered

- ★ Counting
- ★ Mental maths
- ★ Count objects reliably
- ★ Number symbols and number names
- ★ Describe, compare and order objects
- ★ Describe, compare and order numbers
- ★ Solve problems in context
- ★ Calculations
- ★ Time
- ★ Mass
- ★ Position
- ★ Data Handling
- ★ Geometric patterns
- ★ Number patterns

Let's see what you know

1. Count the flowers.



2. Count how many.

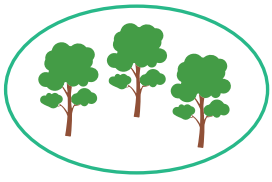
a. 

b. 

3. Arrange the numbers from smallest to biggest.

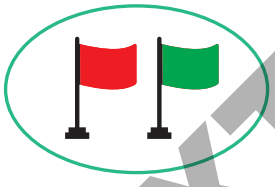
5 7 2 10 1 6 9 3 8 4

4. How many objects do you see?

a. 

b. 

5. Count the objects and write the number name.

a. 

b. 

6. Name the day of the week.

a. What was the day before yesterday?

b. Today is Wednesday. What day is tomorrow?

c. What day is two days from Friday?

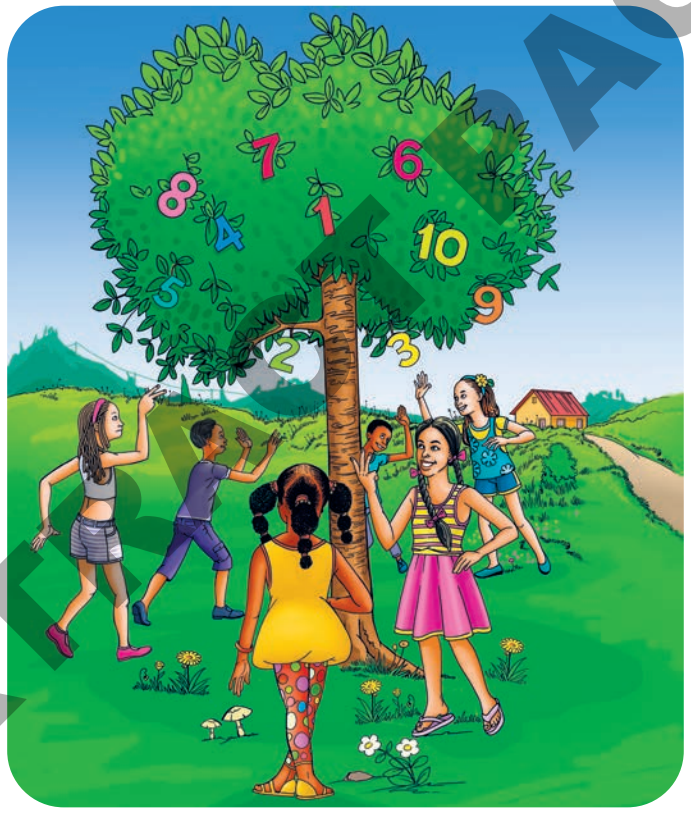
d. Tomorrow is Tuesday. What day is today?

Explore the number island

Zara's number adventure

Once upon a time, in a sunny field near the township of KwaMashu, there lived a girl named Zara. Zara loved to explore and play with maths.

One day, while playing with her friends near an old tree, they imagined it was a magical tree with numbers hanging from its branches.



"1; 2; 3; 4; 5; 6; 7; 8; 9; 10" they counted forwards.

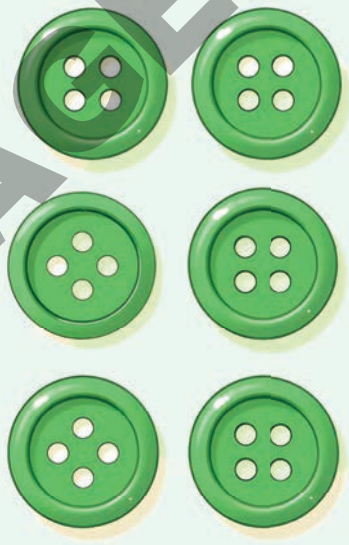
Then they pointed to 5.

"5; 6; 7; 8; 9; 10. Hooray!" they cheered. Zara and her friends had fun playing with numbers!

Counting forwards is starting from a smaller number, like 1; 2; 3; 4; 5.

Counting backwards is starting from a bigger number, like 5; 4; 3; 2; 1.

Worked examples

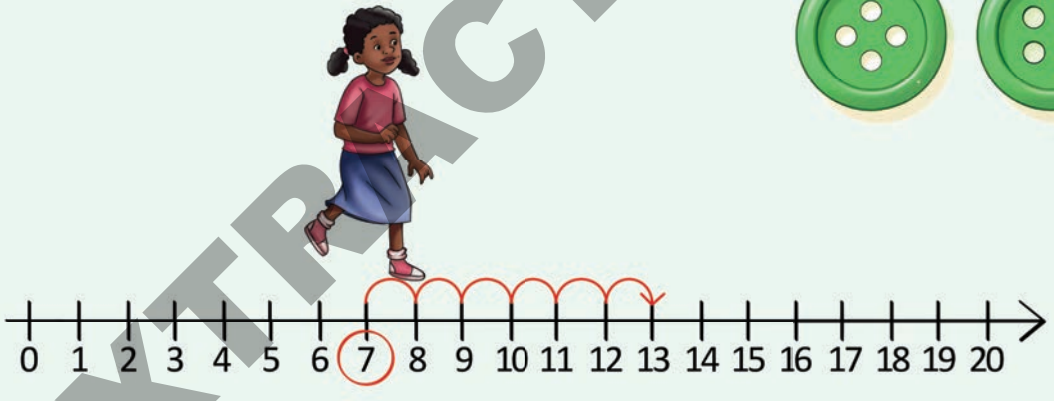


Use a number line.

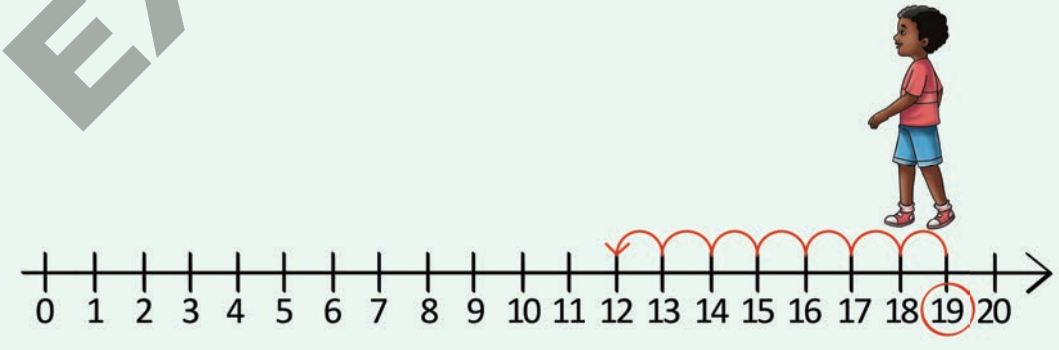
1. Count forward from **7** to **13**.
2. Count backward from **19** to **12**.

Answers

1.



2.



Activity 1

Use a number line.

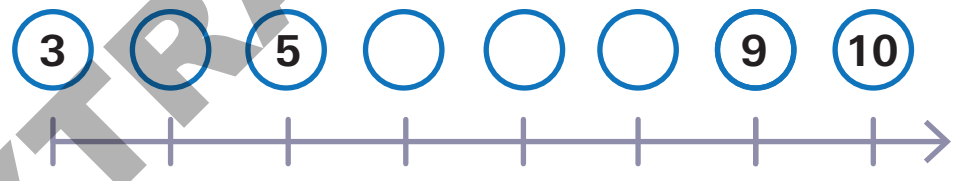
1. Count forward:
   - **a.** from 1 to 7.
   - **b.** from 3 to 10.

2. Count backward:
   - **a.** from 6 to 2.
   - **b.** from 9 to 6.

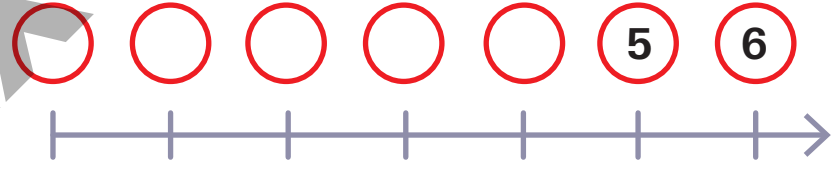
3. Are you counting forwards or backwards?
   - **a.** 1; 2; 3; 4; 5
   - **b.** 8; 7; 6; 5; 4
   - **c.** 2; 3; 4
   - **d.** 3; 2; 1

4. Complete the number lines.

   a.



   b.



5. Copy and fill in the missing numbers.
   - **a.** 1; ___; ___; 4; ___; 6
   - **b.** 10; ___; 8; 7; ___; ___; 4

Counting from 11 to 20

There are numbers bigger than 10. Numbers get bigger as you carry on counting. What comes after 10? Carry on counting.

Hi, I am Lina! Numbers keep going after 10, but we learn a few at a time. I like finding out what comes next!

11; 12; 13; 14; 15; 16; 17; 18; 19; 20

New words

Number symbol: The digits like 1 and 15 that we write to show a number

Activity 2

1. Count forwards:

   8; ___; ___; ___; ___; ___; 14; 15; 16; ___

2. Count backwards:

   20; ___; ___; ___; ___; ___; 14; 13; 12; ___; ___

3. Count in 1s. Fill in the missing numbers.

   a. 8; ___; ___; 11; 12; 13; ___; ___; ___17; ___; ___

   b. 17; 16; ___; ___; ___; ___; 11; ___; ___; 8

Count to add and subtract

Addition and subtraction in counting

When we **count forwards**, we are **adding** one more each time. This means that each number we say is one more than the last.

Worked example

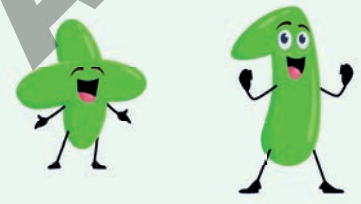
Start at 4. Add one each time up to 7.

Answer

4 + 1 = **5** (One more than 4)

5 + 1 = **6** (One more than 5)

6 + 1 = **7** (One more than 6)



When we **count backwards**, we are **subtracting** one each time. This means that each number is one less than the one before it.

Worked example

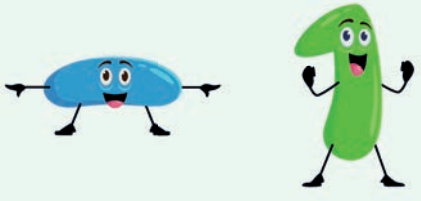
Start at 10. Subtract one each time up to 7.

Answer

10 – 1 = **9** (One less than 10)

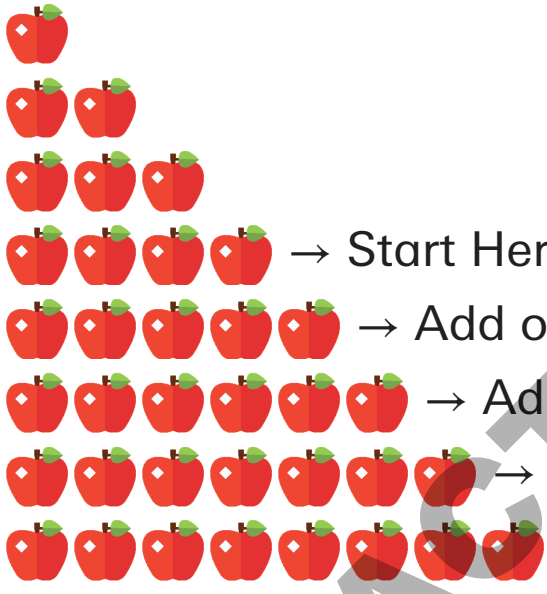
9 – 1 = **8** (One less than 9)

8 – 1 = **7** (One less than 8)



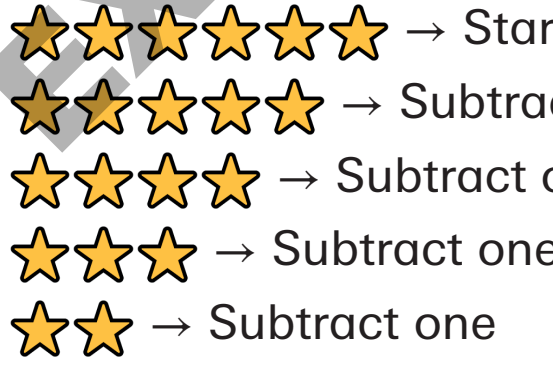
Activity 3

1. Start with 4 apples. Add one more apple each time. Write down the number of apples after each step.



Starting from 4: ___; ___; ___; ___; ___

2. Start with 6 stars. Take away one star each time and write down how many stars are left after each step.



Starting from 6: ___; ___; ___; ___; ___

3. Count forwards starting from 3 carrots by adding one more each time.

 → Add one more each time.

4. Count backwards starting from 7 balloons by subtracting one each time.

 → Subtract one each time.

Order numbers

When we order numbers, we arrange them from smallest to largest. The first number is the smallest, the last is the largest, and the middle number is between them.

Worked example

Order the numbers: 3; 1 and 5.

Answer

First: 1 (because it is the smallest number)
In the middle: 3 (because it is between 1 and 5)
Last: 5 (because it is the biggest number)

Activity 4

1. Arrange the numbers from smallest to largest: 3; 7; 1; 5
2. Which is greater? 4 or 8?

Doing maths in the head!

Mental maths is doing maths in your head without writing. It helps you think fast and do maths easily! Let us learn some ways to improve our mental maths.

More or Less

When we compare numbers, we can say if one number is **more** or **less** than another. To compare, we can think of adding or taking away.

Worked examples

1. Compare 3 and 5.
2. Compare 4 and 5.

Answers

1. 3 is less than 5, by 2.
2. 4 is less than 5, by 1.

Knowing without counting

We can know how many things there are by looking without counting.

Worked examples

How many dots do you see? Do not count.

a. 

b. 

Answers

a. 4 dots

b. 5 dots

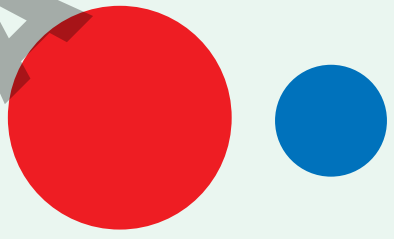
Big and small

Today, we'll compare big and small numbers and learn how addition (+) and subtraction (–) help us solve problems by adding more or taking away.

Worked example

Look at these numbers and say which is big and which is small.

1 and 5



Answer

5 is big 1 is small.

Addition and Subtraction

When we compare numbers, we use more (+) or less (–).

Worked example

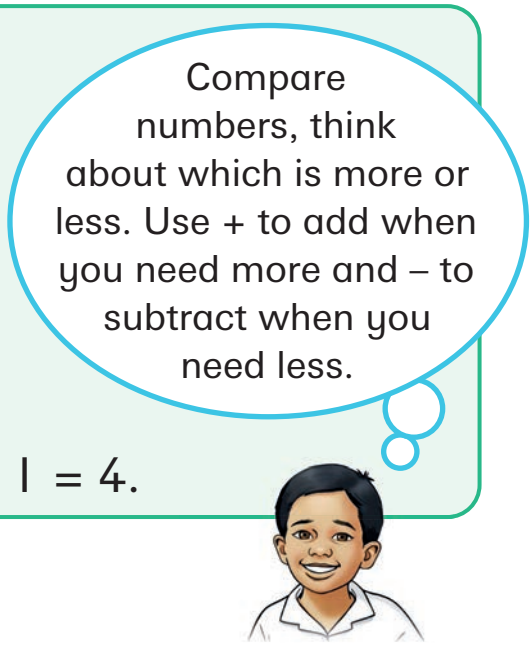
Compare 4 and 5.

Answer

4 is less than 5 by 1.

We add 1 to 4 to get 5: 4 + 1 = 5.

We take away 1 from 5 to get 4: 5 – 1 = 4.



More or less

We can add or subtract to find **one more**, **one less**, **two more**, or **two less** than a number:

- **One more** means adding 1.
- **One less** means taking away 1.
- **Two more** means adding 2.
- **Two less** means taking away 2.

More and less can also be seen when going up or down stairs: going up adds more, and going down takes away.

Worked examples

1. What is one more than 3?
2. What is one less than 3?
3. What is two more than 2?
4. What is two less than 4?

Answers

1. One more than 3 is 4: **3 + 1 = 4**.
2. One less than 3 is 2: **3 – 1 = 2**.
3. Two more than 2 is 4: **2 + 2 = 4**.
4. Two less than 4 is 2: **4 – 2 = 2**.

What's next?

When we talk about numbers **before**, **after**, or **between**, we think about where numbers are placed in a number line.

- The number that comes **before** is smaller.
- The number that comes **after** is bigger.
- The number that comes **between** two numbers is in the middle.

Worked examples

1. What number comes **before** 3?
2. What number comes **after** 4?
3. What number is **between** 2 and 4?

Answers

1. 2 **2.** 5 **3.** 3

Activity

1. Order numbers 2; 5 and 3 from smaller to greater.
2. Which number is more: 4 or 5?
3. What is one more than 2?
4. Look at the group of dots. How many dots do you see without counting?

5. What number comes after 3?
6. What number is between 1 and 3?
7. Look at these numbers and tell which is big and which is small:

   a. 3 and 1 **b.** 5 and 2 **c.** 4 and 3

8. Look at the numbers and say which is more than, less than or equals to 5.

   a. 3 and 5 **b.** 2 and 4

9. **a.** What is two less than 5?

   b. What comes before 5?

   c. What number is between 3 and 5?

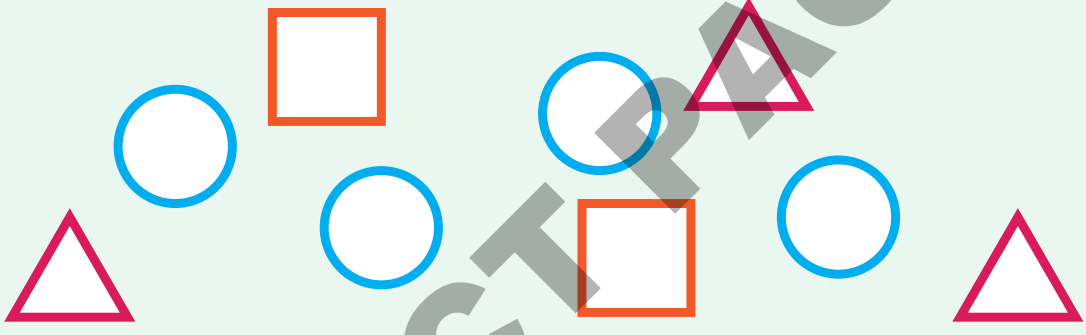
   d. What can you say about 2? Use before, after and between.

Sorting objects

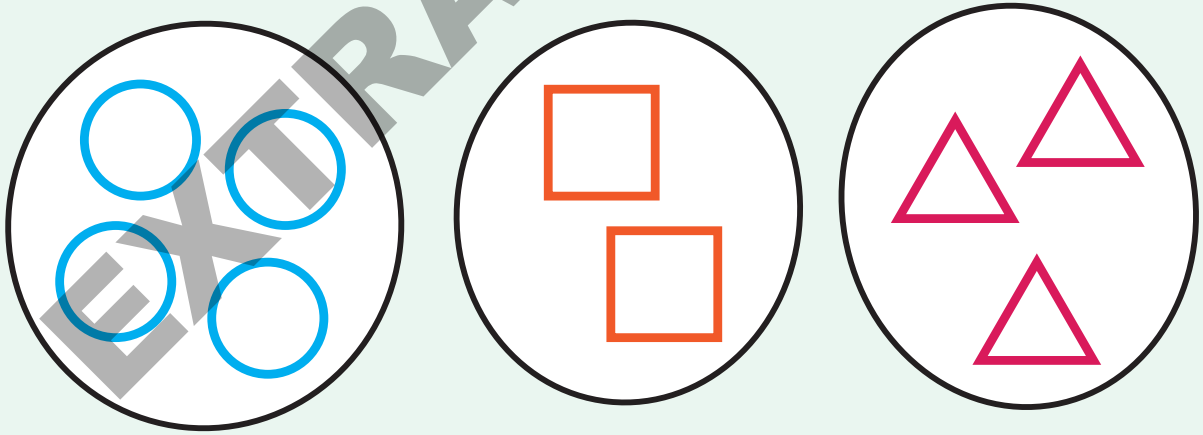
We sort objects to know how many of each object there is. Can you sort the objects in their colours?

Worked example

Sort all objects into groups that are the same.

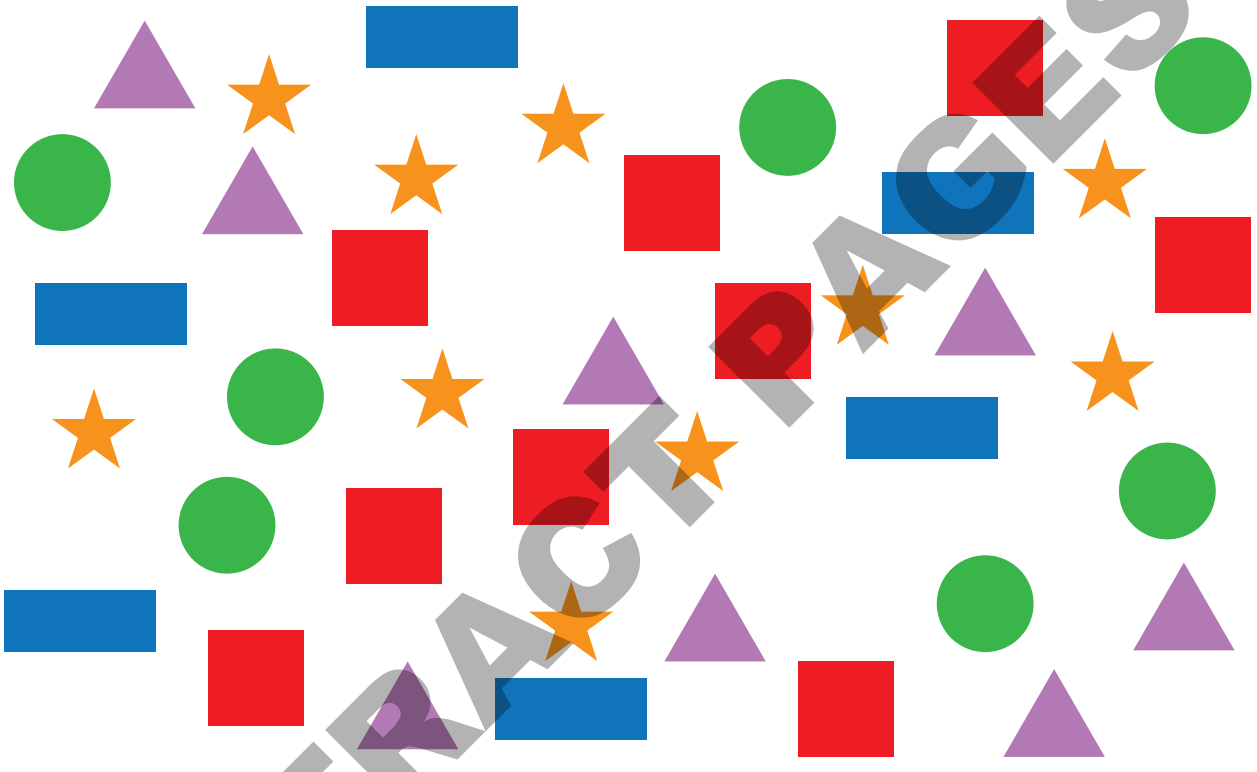


Answer



Activity 1

Sort all objects that are the same.



1. How many stars?
2. How many circles?
3. How many rectangles?
4. How many squares?
5. How many triangles?
6. How many rectangles and triangles together?

Estimating the numbers of objects

When we estimate, we make a good guess about how many objects there are without counting them one by one.

Estimating helps us practice thinking about numbers and makes counting faster.

Activity 2

1. Look at a group of objects.

A

B

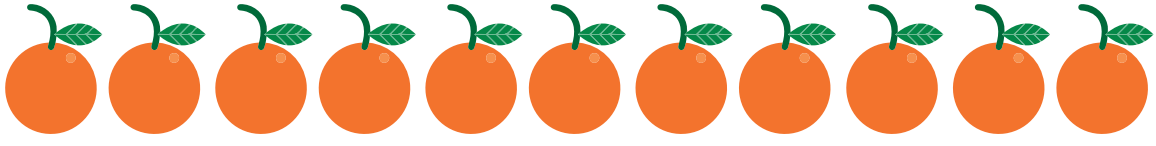
C

D

E

Without counting, guess how many objects we have in each group.

2. Estimate the number of oranges, and then count them.

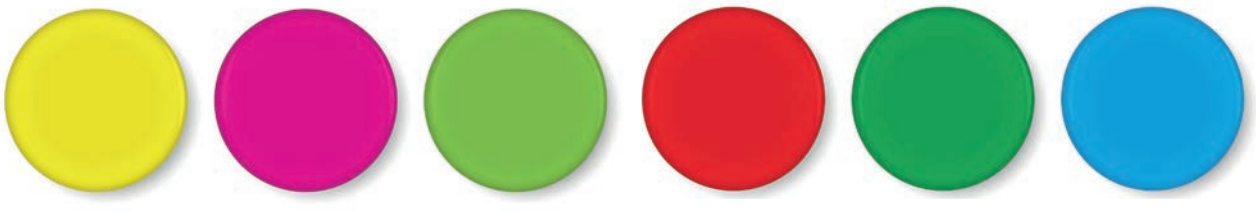


Counting Game

Materials: A small basket with objects (buttons, counters, crayons).

Activity

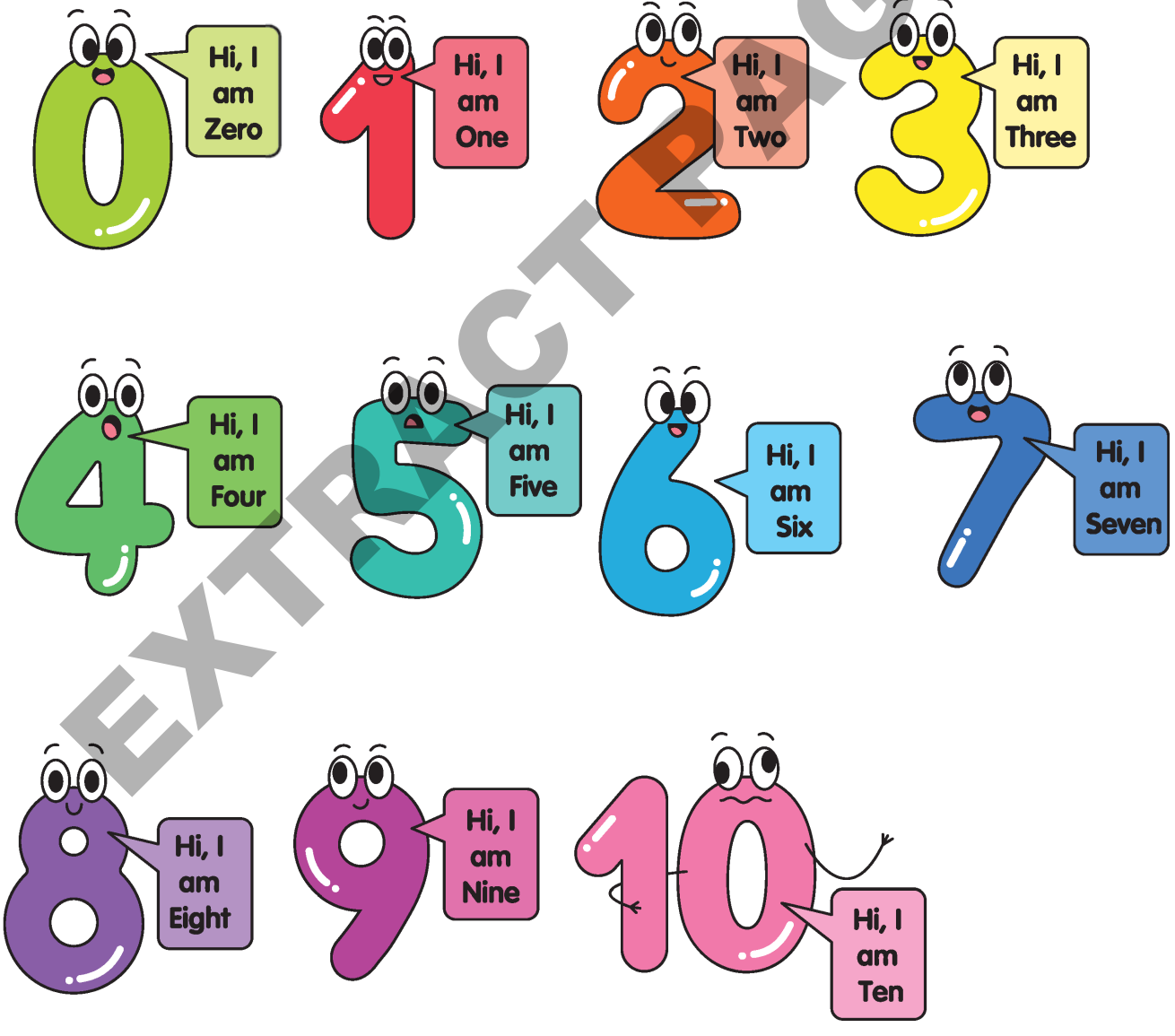
1. Show the basket of objects to the learners.
   a. Ask learners to estimate how many objects are in the basket.
   b. After writing down their estimates, have them count the objects one by one.
   c. Compare their estimates with the actual number.
2. Repeat the activity with different numbers of objects, encouraging more accurate estimates each time.



Special names for numbers

Khaya and the numerals

Numbers have names, just like you and me. Meet Khaya and his friend.



We all have special names. A long time ago, someone gave numbers special names too. We still give numbers those names today. Read these **number names** out loud.


One


Two


Three

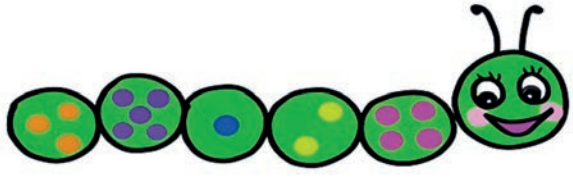

Four


Five

We can write the number names for these number symbols: 1; 2; 3; 4; 5; 6; 7; 8; 9 and 10.

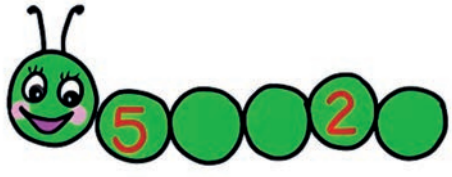
Activity 1

1. a. Write the number symbols of the dots from the caterpillar.



b. Write the number names.

2. Complete the missing numbers and write the number names.



Number names

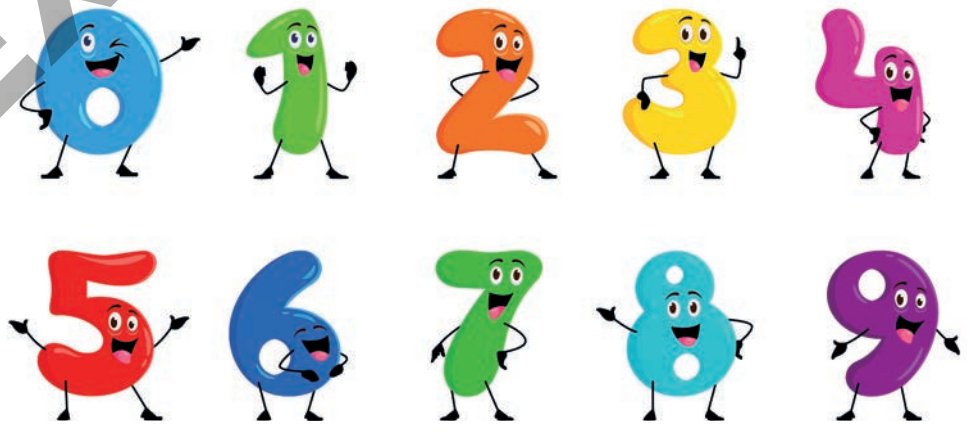
1	one	●
2	two	●●
3	three	●●●
4	four	●●●●
5	five	●●●●●

Activity 2

1. Complete the missing letter.

Number symbol	How many shapes?	Number name
6		s_x
8		_igh_
10		t_n

2. Say the numbers from the table out loud.



Counting is fun!

It is a sunny morning. Miss Thandi is teaching her class about more and less.

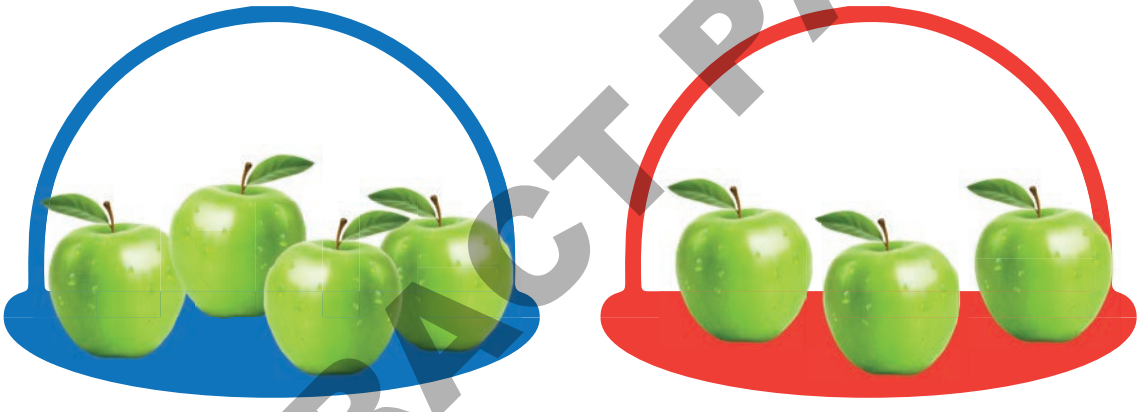
"Which basket has more apples in it?" she asks.

"The blue basket, Miss Thandi," says Rasheed.

"Well done, Rasheed! Can you tell me why?

The basket with four apples has the most.

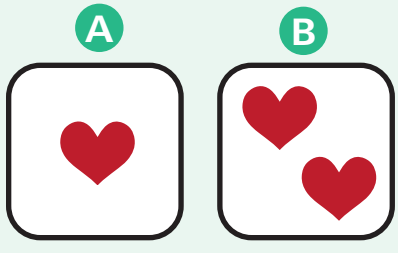
The basket with three apples has the least.



Worked examples

Count the hearts in each box.

Which box has more hearts?



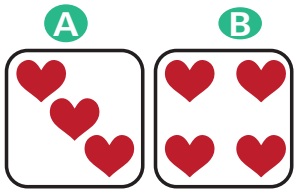
Answers

Box B

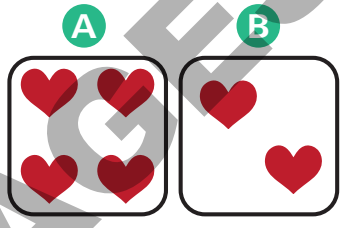
Activity 1

1. Count the hearts in each box. Which box has more hearts?

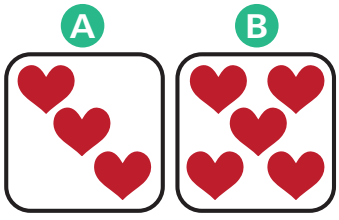
a.



b.

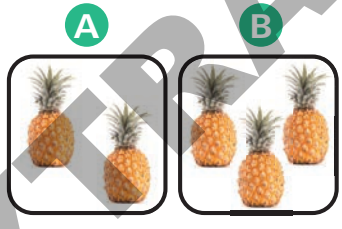


c.

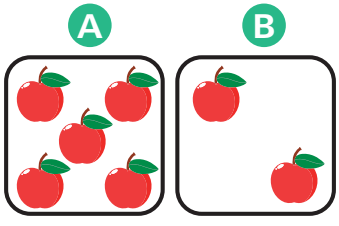


2. Count the fruit in each box. Which box has more fruit?

a.

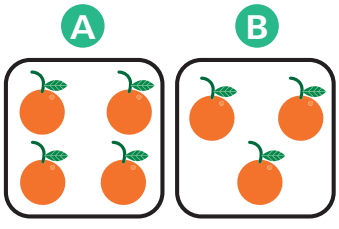


b.

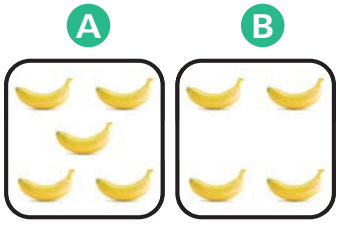


3. Count the fruit in each box. Which box has less fruit?

a.



b.



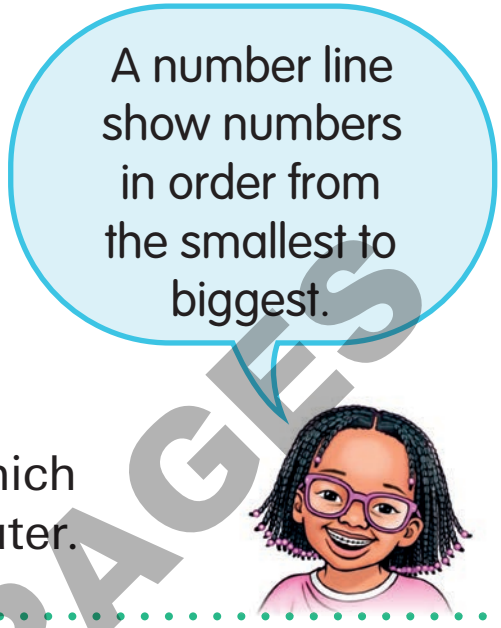
Let's draw the number lines

When comparing two numbers, we can use:

Smaller than: One number is less than another.

Greater than: One number is larger than another.

A number line can help us to see which number is smaller and which is greater.



Activity 2

1. Put your finger on 3 on the number line. Count 2 more steps forward. What number do you end on?

2. Put your finger on 4. Count 2 steps backward. What number do you land on?

3. Use the number line to find the answers.

   a. 4 and 1 more

   b. 5 and 1 less

   c. 3 and 2 more

   d. 3 and 2 less

The basics and beyond

Today, we are going to learn how to solve problems using addition and subtraction as we share.

We will also practice sharing and grouping things equally, sometimes with a few left over.

You will use real-life examples to help you understand how to add, subtract, and share items, and explain how you found the answers.

Worked examples

1. You have 3 marbles.
You want to share with two friends.

a. How many marbles does each friend get?

b. How many are left over?

2. Copy and complete.

a. 1 + 2 = □

b. 13 – 3 = □

c. 1 + 3 = □

d. 5 – □ = 1

Answers

1. a. Each friend will get 1 marble.

b. There will be 1 marble left over.

2. a. 1 + 2 = 3

b. 13 – 3 = 10

c. 1 + 3 = 4

d. 5 – 4 = 1

Activity

1. Find the answer:

   a. 2 + 4 = ☐

   b. 7 – 3 = ☐

   c. 3 + 7 = ☐

   d. 10 – 4 = ☐

   e. 10 – 5 = ☐

   f. 20 – 10 = ☐

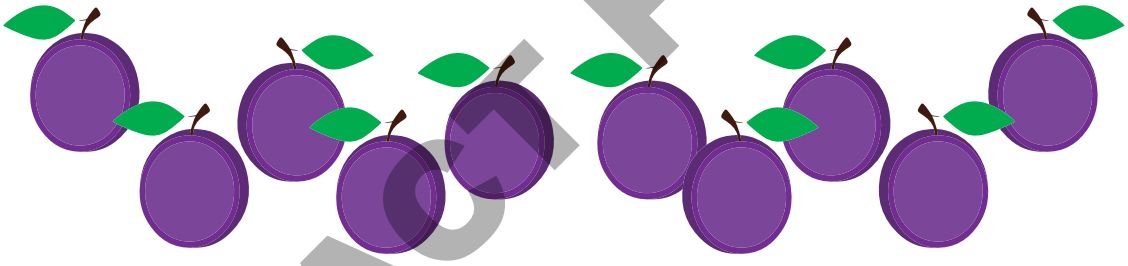
2. Lily has 6 eggs, and she broke 2. How many eggs that are not broken is Lilly left with?

3. There are 4 birds sitting on a tree. Two more birds fly to the tree. How many birds are on the tree now?

4. There are 6 toy cars. Three were taken away by Liam. How many toy cars are left?

5. You have 5 oranges and want to share them with 2 friends. After giving 1 orange to each friend and yourself, how many oranges are left?

6. You have 10 plums and want to share them equally among 3 people.



a. How many plums will each person get?

b. How many are left over?

7. Copy and complete.

a. 2 + □ = 5

b. □ + 3 = 5

c. 4 + □ = 5

d. 3 + □ = 5

e. □ + 4 = 5

f. 5 – □ = 2

g. 5 – □ = 4

h. □ – 2 = 3

Let's solve together!

Today, we are going to learn more about how to **add**, **subtract**, and find **number pairs** that add up to 5.

It is going to be fun!

You will use things like **toys** or **buttons** to help you understand how numbers work.

Add and subtract with counters

Let us use buttons or counters to help us learn.

Addition: Start with **3 buttons**. Now add **2 more buttons**. How many buttons do you have now? That's right, you have **5 buttons**!	**Subtraction**: Start with **5 buttons**. Now take away **2 buttons**. How many are left? You have **3 buttons** left.

Worked examples

1. $3 + 2 = \square$
2. $5 - 2 = \square$

Answer

1. 5
2. 3

Activity 1

1. $1 + 4 = \square$
2. $2 + 3 = \square$
3. $4 - 1 = \square$
4. $5 - 3 = \square$

Number bond friends

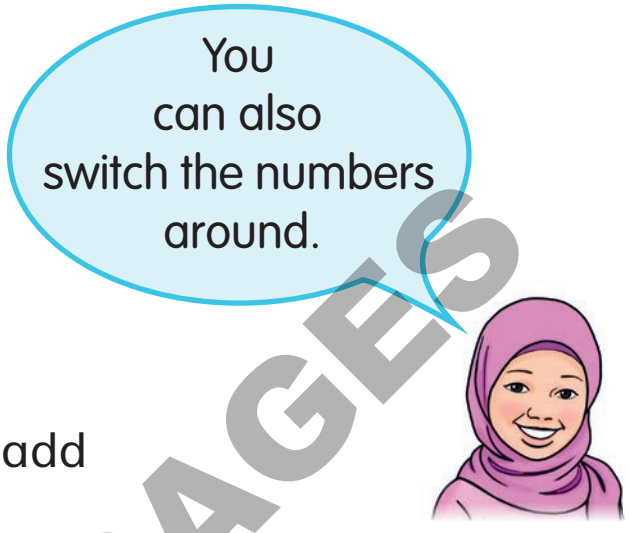
Number bonds are like little number friends.

Two numbers come together to make one big number.

Let us find some friends for **5**.

When we count forwards, we add more numbers.

When we count backwards, we subtract more numbers.



Worked examples

1. $3 + 2 = \square$
2. $5 - 3 = \square$

Answers

1. $3 + 2 = 5$
2. $5 - 3 = 2$

Activity 2

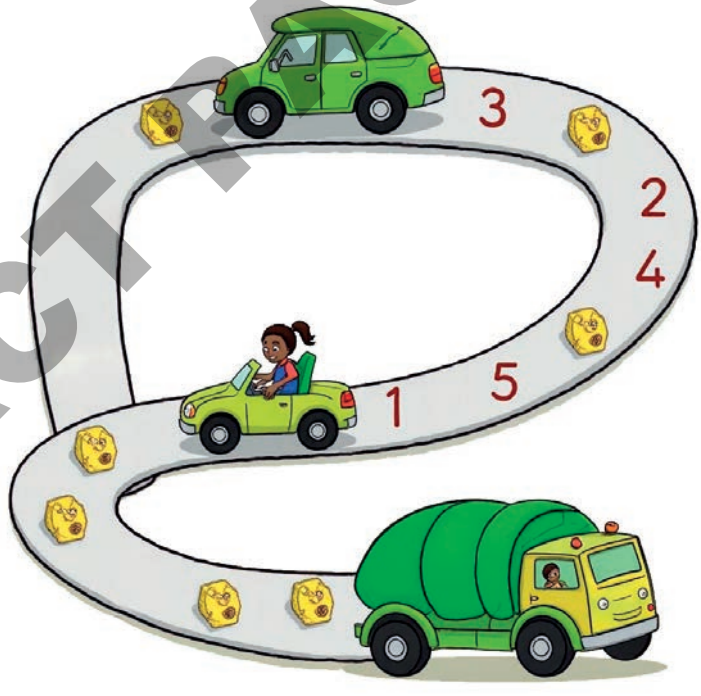
1. $2 + 3 = \square$
2. $4 - 1 = \square$
3. $1 + 4 = \square$
4. $5 - 2 = \square$

Number bonds of 5 are fun!

5 = 4 + 1
5 = 3 + 2
5 = 2 + 3
5 = 1 + 4
5 = 5 + 0

Time to explore

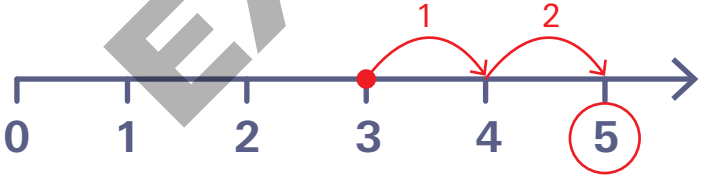
Can you find different ways to make 5 by using two numbers?



Move on a number line

Let us use a **number line** to learn addition and subtraction.

You can draw a line and write numbers from 0 to 5 on it.



Worked examples

Use a number line.

1. Start at 0. Move 3 steps forward.
Now add 2 more steps.
What number did you land on?

Answer

You landed on 5!
3 + 2 = 5

2. Start at 5. Move 2 steps back.
What number did you land on?
You landed on 3!

Answer

5 – 2 = 3

Activity 3

Use your buttons or toys to add and subtract.

1. 3 + 1 = □
2. 2 + 2 = □
3. 4 + 1 = □
4. 3 – 1 = □
5. 4 – 1 = □
6. 5 – 2 = □

Comparing Time

We use words like:

Longer: Takes more time. It takes longer to eat lunch than to tie your shoes.

Shorter: Takes less time. It takes a shorter time to wash your hands than to run to the bus stop.

Faster: Happens quickly. Running is faster than walking.

Slower: Takes longer to happen. Walking is slower than riding a bike.

Comparing lengths of Time

Time can be understood using:

Yesterday: The day before today.

Today: The day we are in right now.

Tomorrow: The day after today.

Activity 1

Look at the activities below and answer the questions:

Brushing your teeth

Playing a game

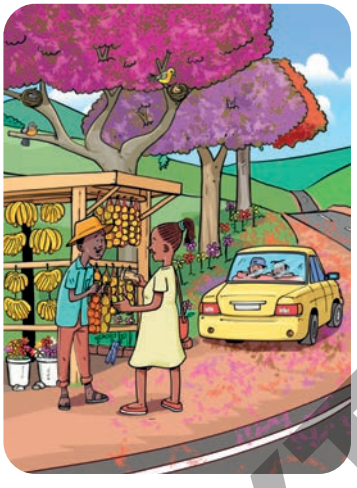
Eating lunch

1. Which activity takes the longest time?
2. Which activity is the shortest?
3. Which is faster, brushing your teeth or eating lunch?
4. Is playing a game slower than brushing your teeth? Why?

Times of a day

There are three main times in a day.

Morning is when we wake up. We get ready for school. We eat our breakfast. The sun rises in the morning.

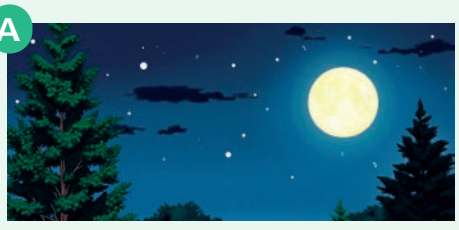


Afternoon is when are nearly done at school. We have lunch. We play with our friends. We go home after school. The sun is out and it is daytime.

Evening is when we are at home. We relax and have dinner. It is dark outside. We go to bed.

Worked example

The pictures are jumbled. Put them in the right order of time of day.

A 

B 

C 

Answer

B, C, A

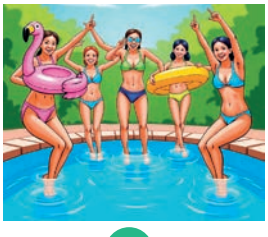
Activity 2

1. Choose the correct time of day.

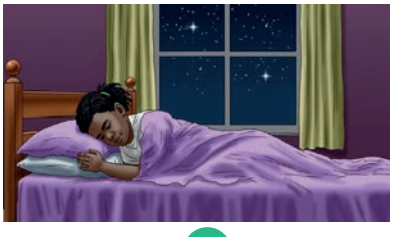
   Morning **Afternoon** **Evening**

   a. When do you go to sleep?
   b. When do you have breakfast?
   c. When do you play with your friends?

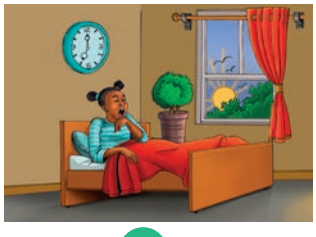
2. Put the pictures in the correct order of the day.



A



B



C

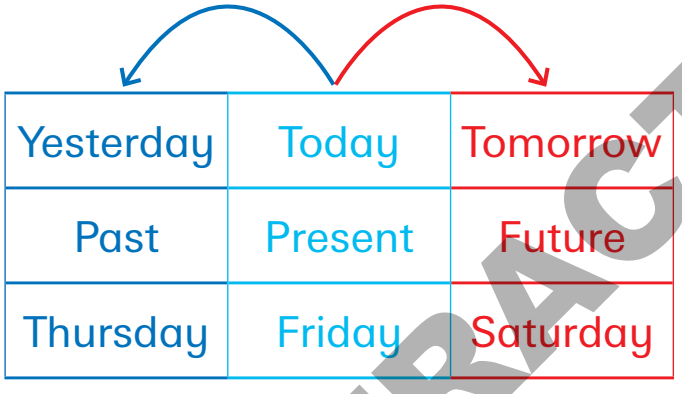
Time passing by

Let us look at how to keep track of time.

The day right now is **today**. If you are at school and it is Friday, you are living through Friday.

The day before today is **yesterday**. If today is Friday, then yesterday was Thursday.

The day after today is **tomorrow**. If today is Friday, then tomorrow is Saturday.



Yesterday	Today	Tomorrow
Past	Present	Future
Thursday	Friday	Saturday

Time to explore

Today is _____.

Yesterday was _____.

Tomorrow will be _____.

Activity 3

1. Today is Monday. Which day was it yesterday?
2. Today is 5 May 2025. Do the events below happen in the past, present or future?
   - **a.** A birthday party in October 2025
   - **b.** A school race on 5 May 2025
   - **c.** Thabo's birthday in 2024 was on 16 March.

Measure length in the jungle

There is something you do every day that makes your life easier. Do you know what it is? How do you get ready in the morning?

You put toothpaste on your toothbrush.

You add sugar to your tea.

You check the time to leave for school.

To do all these things, you **measure** them.

We measure things to find out how **long**, **short**, **tall**, **big**, **small**, **full**, **empty**, **heavy** or **light** they are.

Comparing and measuring mass with informal units

A truck  is **heavier** than your pencil  .

Your pencil  is **lighter** than a truck  .

New words

Heavier: weighs more, is harder to lift.

Lighter: weighs less, is easier to lift.

Worked example

Which object is heavier?

A 

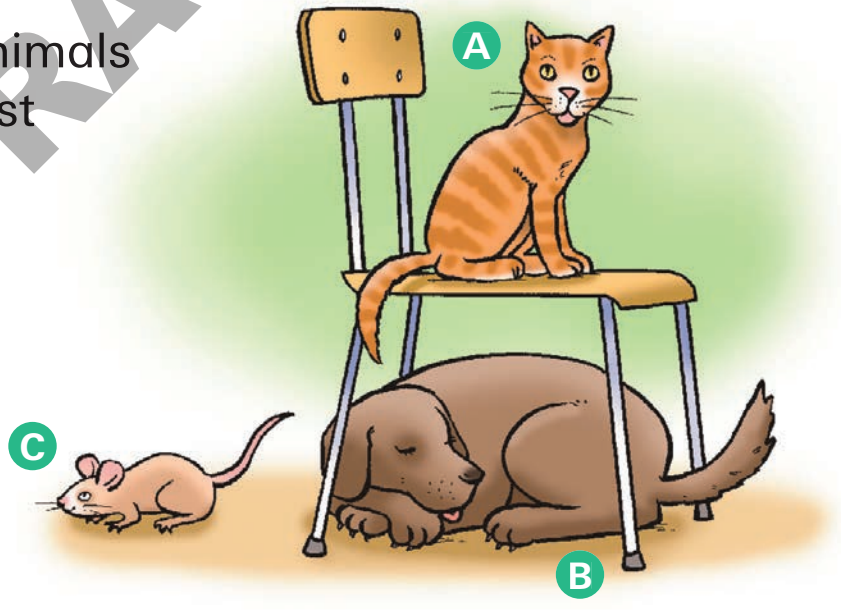
B 

Answer

B: a bag of flour is heavier.

Activity 1

1. Order the animals from heaviest to lightest.



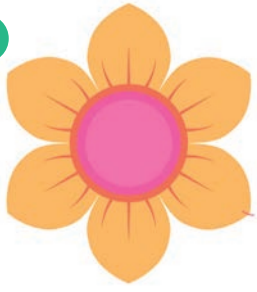
2. Which object is heavier?

A  OR  B

3. Which animal is lighter?

A B 

4. Which object is heavier and bigger?

A  OR B 

5. Which object is lighter and smaller?

A  OR B