CAPS

maskew miller learning

GRADE 3 LEARNER'S BOOK

Platinum Mathematics

S. Bota • G. Agherdien • N. Johnson • G. Van der westhuizen

Platinum Mathematics Grade 3 Learner's Book

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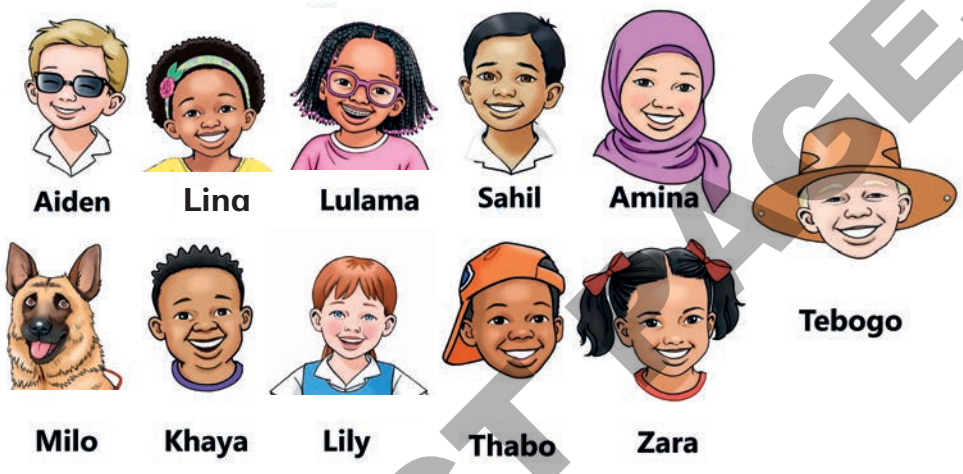
Welcome

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!



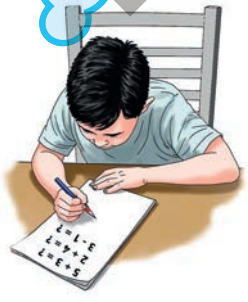
Check-up test

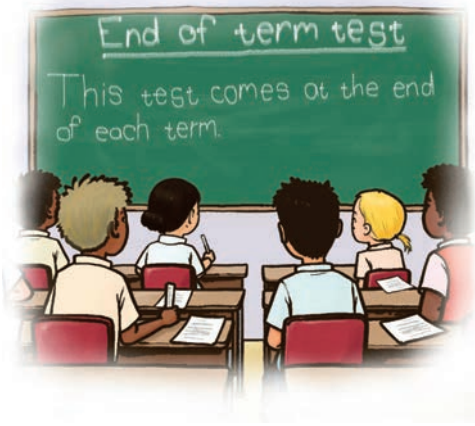
Let us see what you know.

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 visuals 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: A 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 2

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Term 4

Term 1: Get started with Maths!

Hello! My name is Lina, and I love numbers. I can count in two languages! In English, I say "one, two, three", and in Afrikaans, it's "een, twee, drie". Isn't that cool?

Topics to be covered

- ★ Counting
- ★ Mental maths
- ★ Count objects reliably
- ★ Number symbols and number names
- ★ Describe, compare and order numbers
- ★ Place value
- ★ Solve problems in context
- ★ Calculations
- ★ Fractions
- ★ Telling time
- ★ Geometric patterns
- ★ 3D objects
- ★ Positions
- ★ Length
- ★ Data handling

A world without counting

Imagine a world where no one knew how to count. Everything would be hard.

At school, lining up with your classmates would be confusing. You wouldn't know if you were first, second or third.

At the market, buying food would be hard. You wouldn't know if you had enough money or how many apples to ask for.

At home, you wouldn't know how many toys you have. You would struggle to bake a cake without knowing quantities. How would you play hide and seek without counting?

Counting helps us understand the world. It tells us how much, how many, and the order of things. Without counting, life would be very confusing. The good thing is that we can learn to count, making life easier and much more fun!

Let's see what you know

1. Counting forwards and backwards

Fill in the missing numbers by counting forwards or backwards.

a. 17; 18; 19; ___; ___; ___
b. 54; 53; 52; ___; ___; ___
c. 95; 96; 97; ___; ___; ___
d. 180; 179; 178; ___; ___; ___
e. ___; ___; ___; 149; 150; 151

2. Number recognition and writing symbols

a. Match each number word with its symbol.

fifty-three	92
seventy-eight	53
ninety-two	78

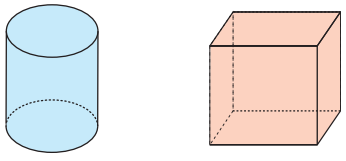
b. Write the number symbol for the word fifteen.

3. Basic arithmetic (addition and subtraction up to 20)

a. You have 12 oranges and get 5 more. How many oranges do you have in total?
b. What is 15 – 6?
c. Tom had 18 sweets. He gives 7 to his friend. How many sweets does he have left?

4. 3D objects

a. Which object is a cylinder?
b. Which object is a cube?



A B

5. Time

a. What day is it today?
b. What day is the day after tomorrow?

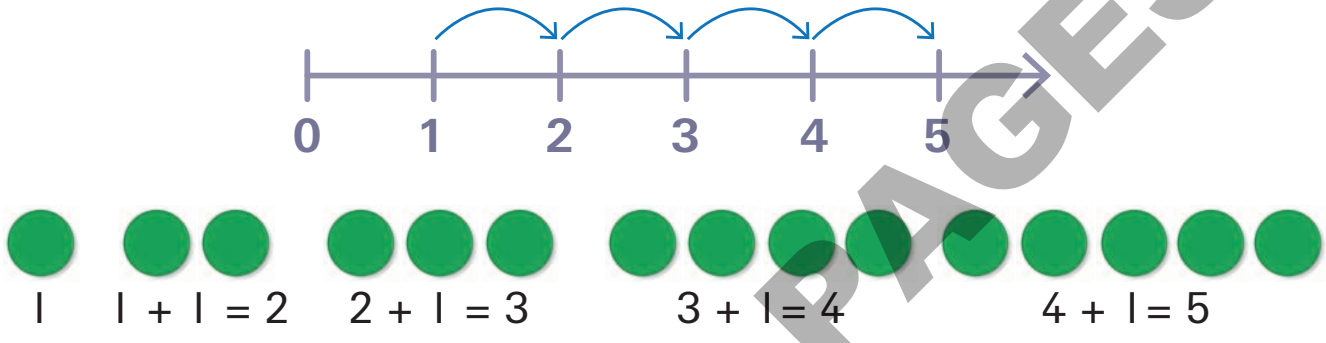
6. Problem solving

a. List the days of the week in order, starting with Monday.
b. If today is Monday, what day will it be four days from now?
c. Lameez has R15. She buys a toy for R9. How much money does she have left?
d. A bus has 20 seats. If 7 seats are taken, how many seats are open?

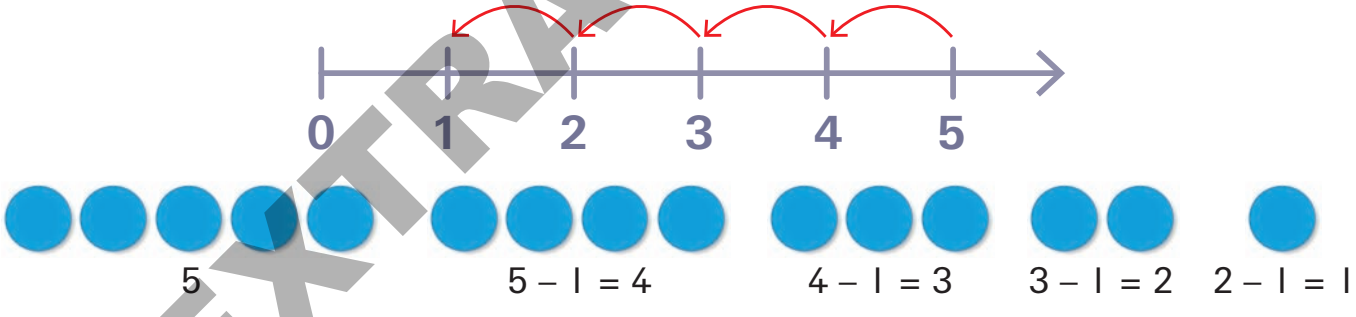
Let's begin our counting journey!

Counting is important in our daily lives. Think about things that you have counted today. Why did you count them?

Counting forwards: you start at a number and add as you count. When you count forwards, you move to the right on the number line.



Counting backwards: you start at a number and subtract as you count. When you count backwards, you move to the left on the number line.



New words

Add (+): plus

Subtract (–): minus

Counting forwards and backwards in 1s

We count in **1s** like this: Count forwards 1; 2; 3; 4; 5; …

Count backwards: 5; 4; 3; 2; 1

Worked examples

Count forwards and backwards in **1s**. Write the numbers.

1. 0; 1; ___; ___; ___
2. 19; 18; 17; ___; ___; ___
3. ___; ___; ___; 95; 96; 97
4. 174; 173; 172; ___; ___; ___

Answers

1. 0; 1; **2**; **3**; **4**
2. 19; 18; 17; **16**; **15**; **14**
3. **92**; **93**; **94**; 95; 96; 97
4. 174; 173; 172; **171**; **170**; **169**

Activity 1

Counting forwards and backwards in **1s**.

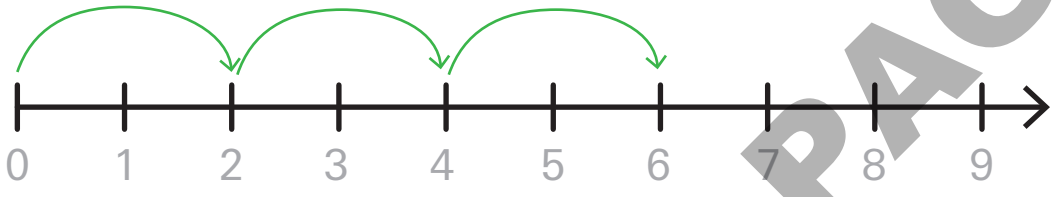
1. 1; 2; 3; ___; ___; ___; ___; ___; ___
2. 10; 11; 12; ___; ___; ___; ___; ___; ___
3. ___; ___; ___; ___; 34; 33; 32; 31; 30
4. 173; ___; ___; 176; ___; ___; ___; 180
5. ___; ___; ___; 50; ___; ___; ___; 54

Counting forwards and backwards in 2s, 3s and 4s

The way you count depends on what you want to know about the numbers.

We count in **2s**: 2; 4; 6; 8; 10; ...

When you count forward in 2s, you add 2 each time.

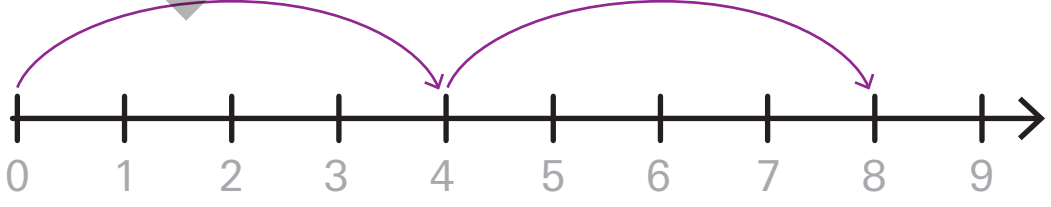


We count in **3s**: 3; 6; 9; 12; 15; ...

When you count forward in 3s, you add 3 each time.

We count in **4s:** 4; 8; 12; 16; 20; ...

When you count forward in 4s, you add 4 each time.



Worked examples

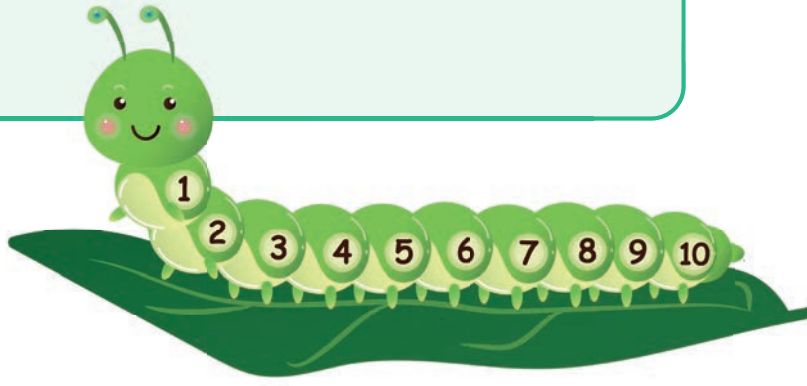
1. Count forwards and backwards in 2s.
   a. 10; 12; 14; ___; ___; ___
   b. ___; ___; ___; 70; 72; ___; ___

2. Count forwards and backwards in 3s.
   a. 10; 13; 16; ___; ___; ___
   b. ___; ___; ___; 70; 73; ___; ___

3. Count forwards and backwards in 4s.
   a. 10; 14; ___; ___; ___; ___
   b. ___; ___; 66; 70; ___; ___

Answers

1. a. 10; 12; 14; 16; 18; 20
   b. 64; 66; 68; 70; 72; 74; 76
2. a. 10; 13; 16; 19; 22; 25
   b. 61; 64; 67; 70; 73; 76; 79
3. a. 10; 14; 18; 22; 26; 30
   b. 58; 62; 66; 70; 74; 78



Activity 2

1. Copy and complete. Count in 2s.

   a. 2; 4; 6; ___; ___; ___; ___; ___; ___

   b. ___; ___; ___; ___; 30; 32; 34; 36; 38

   c. ___; ___; ___; ___; 68; 66; 64; ___; ___

2. Copy and complete. Count in 3s.

   a. 1; 4; 7; ___; ___; ___; ___; ___; ___

   b. ___; ___; ___; ___; 30; 33; 36; ___

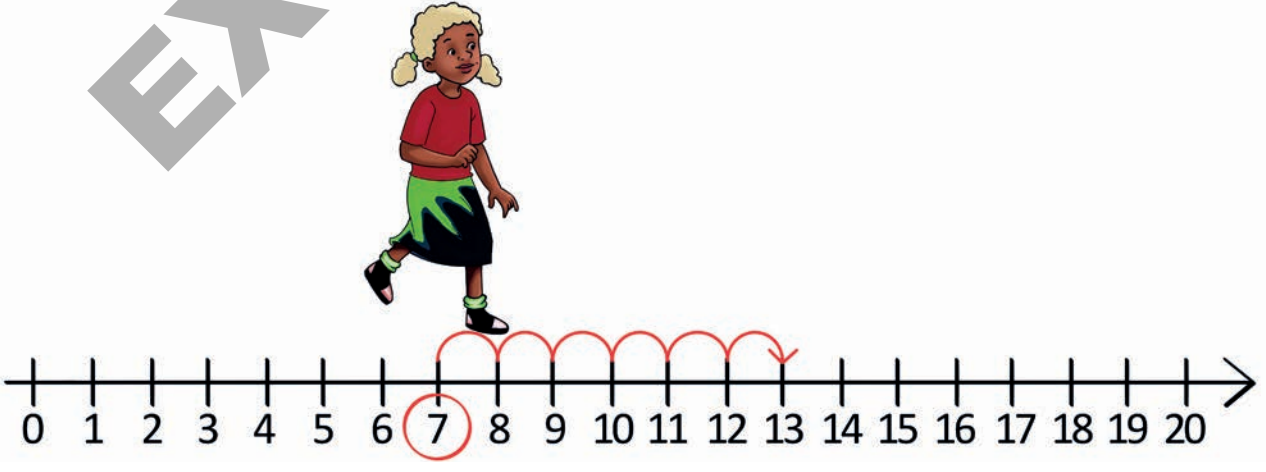
   c. ___; ___; ___; 56; 53; 50; ___; ___

3. Copy and complete. Count in 4s.

   a. 26; 30; ___; ___; ___; ___; ___; ___

   b. ___; ___; ___; ___; 30; 34; 38; 42

   c. ___; ___; ___; 67; 63; 59; ___; ___



Counting forwards and backwards in 5s, 10s and 100s

When we **count forwards**, we **add** (+) the same number over and over.

When we **count backwards**, we **subtract** (–) the same number over and over.

Worked examples

1. Count forwards in 5s from 35 to 50.	2. Count backwards in 5s from 50 to 35.
35 + 5 = 40	**50** – 5 = 45
40 + 5 = 45	45 – 5 = 40
45 + 5 = **50**	40 – 5 = **35**
35; 40; 45; 50	50; 45; 40; 35

3. Count forwards in 10s from 35 to 65.	4. Count backwards in 10s from 65 to 35.
35 + 10 = 45	**65** – 10 = 55
45 + 10 = 55	55 – 10 = 45
55 + 10 = **65**	45 – 10 = **35**
35; 45; 55; 65	65; 55; 45; 35

5. Count forwards in 100s from 100 to 500.	6. Count backwards in 100s from 500 to 100.
100 + 100 = 200	**500 – 100** = 400
200 **+ 100** = 300	400 **– 100** = 300
300 **+ 100** = 400	300 **– 100** = 200
400 **+ 100** = **500**	200 **– 100** = **100**
100; 200; 300; 400; 500	**500; 400; 300; 200; 100**

Counting forwards: we add

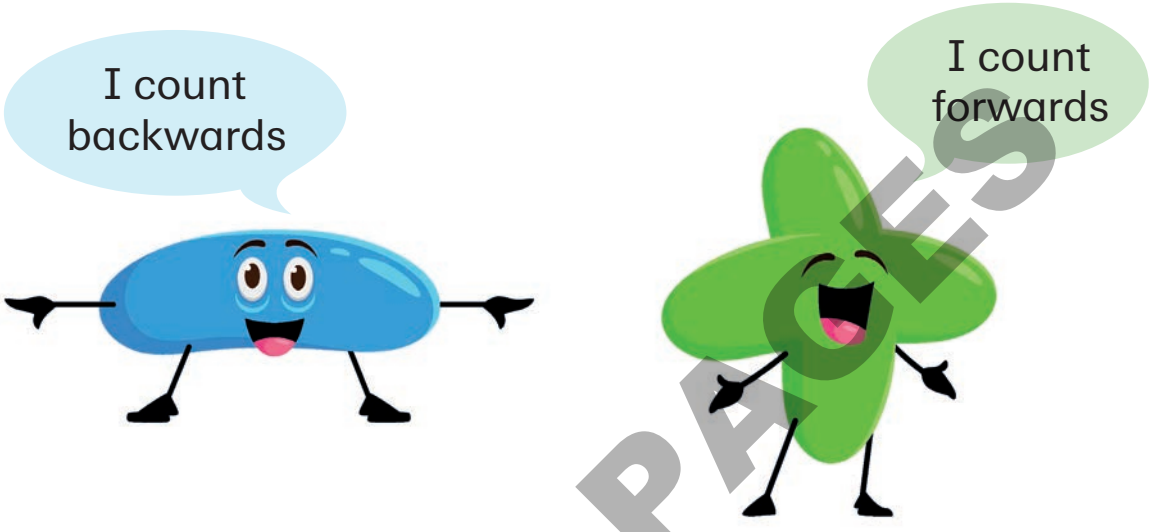
Counting backwards: we subtract

Activity 3

1. Count in 5s.
   - a 0; 5; 10; ___; ___; ___; ___; ___
   - b. ___; ___; ___; ___; 31; 36; ___; ___; ___
2. Count in 10s.
   - a. 0; 10; ___; ___; ___; ___; ___; ___
   - b. ___; ___; 31; 41; 51; ___; ___; ___
3. Count in 100s.
   - a. 100; 200; ___; ___; ___
   - b. 120; 220; ___; ___

Playing with opposite operations

Addition and subtraction are like best friends. They work together in maths to help us understand how numbers change.



When we **add**, we combine numbers to make a bigger number – a 'more than' number.

When we **subtract**, we take away from a number to make a smaller number – a 'less than' number.

Worked examples

45 + 5 = 50
50 is more than 45.

50 – 5 = 45
45 is less than 50.

New words

Add (+ plus): counting forwards

Subtract (– minus): counting backwards

Operation: a sign that shows what to do, such as + and –

Activity 4

1. Add and subtract.

Addition Count forwards	Subtraction Count backwards
a. 5 + 1 = __	**b.** __ – 1 = 5
c. 8 + __ = 10	**d.** 10 – __ = 8
e. 3 + __ = 10	**f.** 10 – 3 = __
g. 25 + 30 = __	**h.** __ – 30 = 25
i. __ + 13 = 100	**j.** 100 – __ = 13
k. 135 + __ = 195	**l.** 195 – __ = 135

2. Use the terms more than or less than to complete each statement.

a. 6 is _____ 5.

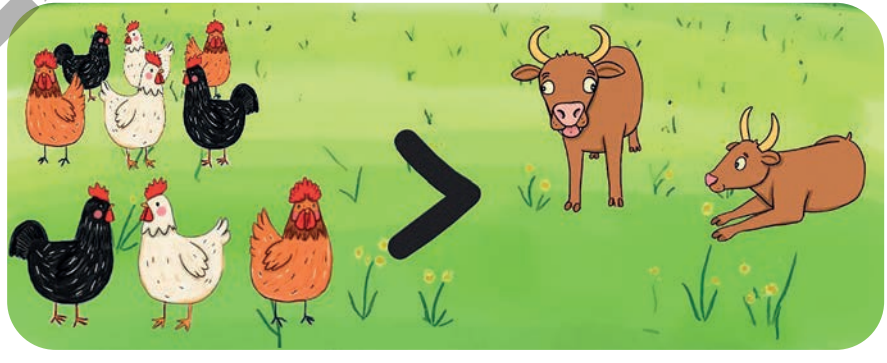
b. 10 is _____ 8.

c. 3 is _____ 10.

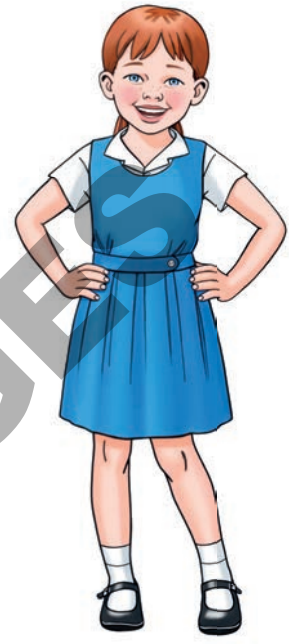
d. 55 is _____ 30.

e. 100 is _____ 13.

f. 135 is _____ 195.



Activity 5



1. Use the terms **more than** or **less than** to complete each statement.

   a. 124 is _____ 121.

   b. 142 is _____ 146.

   c. 155 is _____ 153.

   d. 164 is _____ 169.

   e. 182 is _____ 172.

   f. 196 is _____ 205.

Remember

187 > 178 means 187 is more than 178.

124 < 142 means 124 is less than 142.

Let's practise how to use the > and < symbols.

Time to explore

First solve the problems. Then use > or < to compare the answers.

a. 42 + 16 _____ 32 + 10

b. 36 – 15 _____ 15 + 15

c. 80 + 0 _____ 70 + 11

d. 67 – 17 _____ 19 + 30

e. 95 + 3 _____ 100 – 3

f. 71 – 16 _____ 49 + 7

Climb up and slide down with numbers!

Ascending and descending order

When we arrange a list of numbers from the smallest to the biggest, we say the numbers are arranged in **ascending order**.

When we arrange a list of numbers from biggest to smallest, we say the numbers are arranged in **descending order**.

Worked examples

1. Arrange the numbers in ascending order. Say whether they follow a pattern of counting in 1s, 2s, 3s, 4s, 5s, 10s.

a. 22; 18; 21; 20; 19; 17

b. 37; 31; 35; 33; 29; 27

c. 34; 10; 26; 2; 6; 14; 22; 18; 30

d. 35; 20; 45; 30; 25; 40; 50; 15

e. 50; 60; 10; 80; 70; 20; 40; 30

Ascending – going up

Answers

1. **a.** 17; 18; 19; 20; 21; 22: counting in 1s

b. 27; 29; 31; 33; 35; 37: counting in 2s

c. 2; 6; 10; 14; 18; 22; 26; 30; 34: counting in 4s

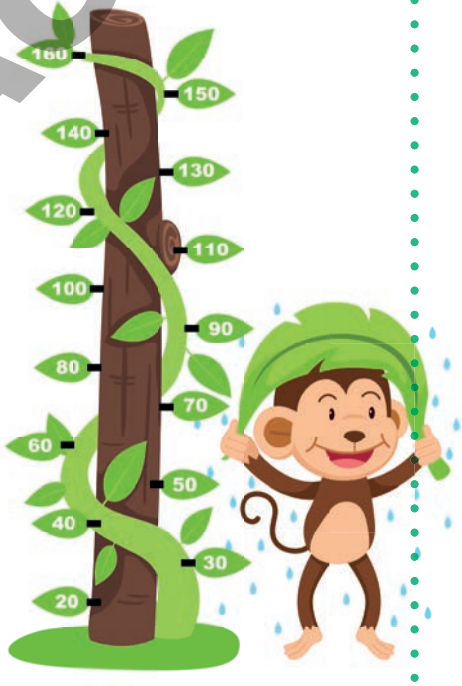
d. 15; 20; 25; 30; 35; 40; 45; 50: counting in 5s

e. 10; 20; 30; 40; 50; 60; 70; 80: counting in 10s

Activity 6

1. Arrange in ascending order. Say whether the pattern of counting is in 1s, 2s, 3s, 4s, 5s, 10s or 100s.
   - **a.** 175; 179; 180; 177; 173; 176; 174; 178
   - **b.** 20; 16; 10; 26; 14; 18; 22; 24; 12
   - **c.** 56; 77; 74; 59; 68; 71; 62; 65
   - **d.** 18; 14; 38; 26; 30; 22; 10; 34
   - **e.** 34; 64; 44; 24; 54
   - **f.** 320; 120; 220; 420

2. Arrange in descending order.
   State the pattern of counting.
   - **a.** 159; 160; 158; 156; 155; 157
   - **b.** 28; 36; 34; 40; 38; 32; 42; 44; 30
   - **c.** 63; 69; 54; 66; 51; 48; 60; 57
   - **d.** 32; 28; 48; 24; 40; 44; 20; 36
   - **e.** 48; 38; 33; 53; 43
   - **f.** 150; 450; 350; 250



3. Start from 80. Count in 5s to 100 and write all the numbers in ascending order.

4. Start from 100. Count in 2s to 92 and write all the numbers in descending order.

Counting forwards and backwards in 2s, 3s, 4s, 5s, and 10s up to 200

Let us continue to practise counting up to 200.

Worked examples

1. Copy and complete. Count in 2s.
   a. 190; 192; __; __; __; __ **b.** 150; 148; __; __; __; __
2. Copy and complete. Count in 3s.
   a. 185; 188; __; __; __; __ **b.** 200; 197; __; __; __; __
3. Copy and complete. Count in 4s.
   a. 164; 168; __; __; __; __ **b.** 100; 96; __; __; __; __
4. Copy and complete. Count in 5s.
   a. 175; 180; __; __; __; __ **b.** 195; 190; __; __; __; __
5. Copy and complete. Count in 10s.
   a. 150; 160; __; __; __; __ **b.** 140; 130; __; __; __; __

Answers

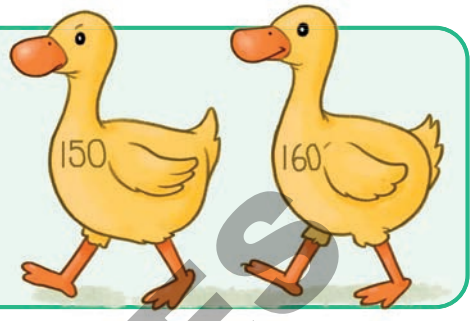
1. **a.** 190; 192; 194; 196; 198; 200
   b. 150; 148; 146; 144; 142; 140
2. **a.** 185; 188; 191; 194; 197; 200
   b. 200; 197; 194; 191; 188; 185
3. **a.** 164; 168; 172; 176; 180; 184
   b. 100; 96; 92; 88; 84; 80

4. **a.** 175; 180; 185; 190; 195; 200

b. 195; 190; 185; 180; 175; 170

5. **a.** 150; 160; 170; 180; 190; 200

b. 130; 120; 110; 100; 90; 80



Activity 7

1. Copy and complete. Count in 2s, 3s, 4s, 5s, 10s, or 100s.

a. ___; ___; ___; 196; 198; 200

b. ___; ___; ___; 194; 192; 190

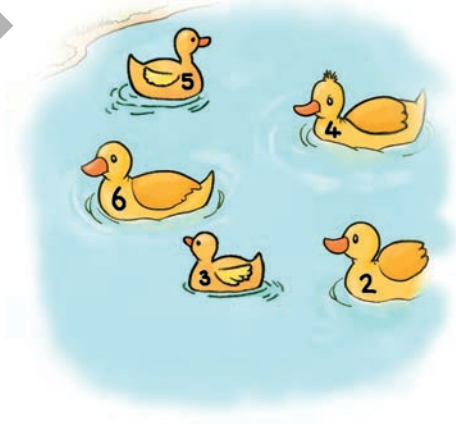
c. 98; 95; ___; ___; ___; 83

d. 184; 188; ___; ___; 200

e. 79; 75; ___; ___; 63

f. ___; ___; ___; ___; 195; 200

g. ___; ___; ___; 190; 90



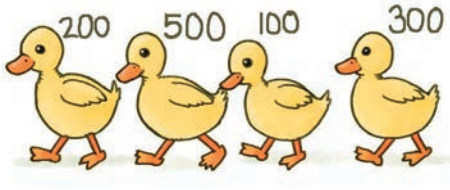
2. Arrange in ascending order. Say whether they follow a pattern of counting in 1s, 2s, 3s, 4s, 5s, 10s or 100s.

a. 175; 200; 180; 185; 190; 195

b. 191; 197; 185; 194; 188; 200

c. 98; 94; 92; 96; 90; 200

d. 200; 500; 100; 300; 400



Mental maths strategies

When you use mental maths, you solve maths problems quickly in your head, without using paper, calculators or counters.

It helps improve your number sense, which is your power to understand and work with numbers easily.

When you can answer maths questions quickly, it builds your confidence and prepares you for more advanced maths.

Calculation strategies

There are many ways to solve mental maths problems. These methods help you break down problems into simpler steps so that you can solve them in your head.

New words

strategy: a special plan you make to help you do something better

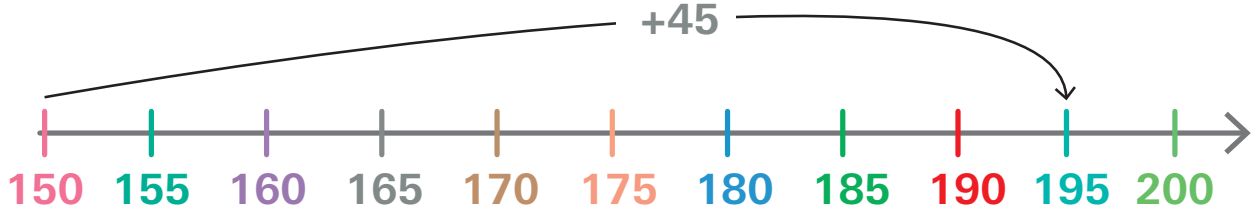
1 Put the bigger number first.

When you add or subtract, always start with the bigger number. This makes it easier to count forwards or backwards.

Example: To solve 45 + 150, start with 150 and add 45. This is easier than starting with 45 and adding 150.

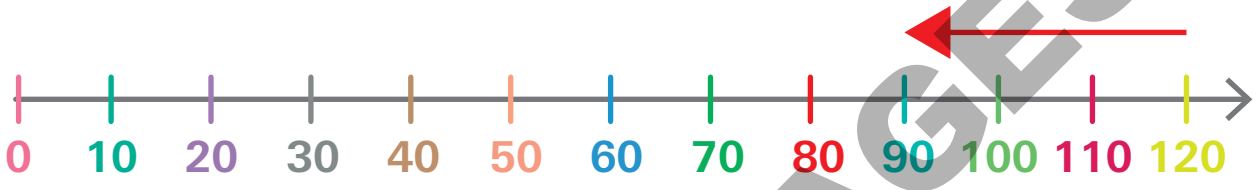
2 Use a number line.

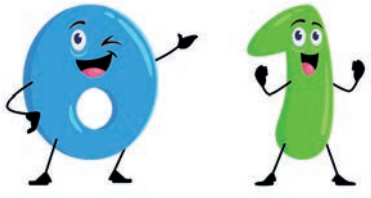
A number line helps you to see the numbers in the correct order.



You can either imagine a number line in your head or draw one to help you add or subtract. To add, **move to the right** on the number line. To subtract, **move to the left**.

Example: To solve 120 – 30, start at 120 on the number line and move 30 spaces to the left, ending on 90.





Other mental maths strategies include **doubling or halving** and **building up and breaking down**. You will learn more about them later.

Ordering and comparing numbers

Remember:

- You can compare numbers to say if the number is bigger (more than) or smaller (less than) the other number.
- Ascending order – numbers from smallest to biggest.
- Descending order – numbers from biggest to smallest.

These skills also help you with mental maths.

Activity 1

1. Arrange in ascending order: 64; 56; 60; 52
2. Arrange in descending order: 145; 140; 150; 135
3. Choose from the numbers in the boxes.

145	76	84	125	132	78

   a. Which number is 2 more than 82?
   b. Which number is 4 less than 82?
   c. Which number is 10 more than 135?
   d. Which number is 3 less than 135?

4. Put the bigger number first. Then solve.

   a. 28 + 68
   b. 76 + 105
   c. 240 + 135
   d. 55 + 387

5. Use a number line to solve. Count backwards or forwards in 10s.

   a. 140 + ___ = 200
   b. 140 – 20 = ___
   c. If you jump from 110 to 135 counting in 5s, how many jumps will you need to make?

6. Complete the number problems.

   a. 30 + ___ = 38
   b. 55 = 30 + ___
   c. 79 – ___ = 60
   d. 67 + 13 = 120 – ___

Activity 2

Answer these questions in your head as fast as possible.

1. Addition
   - **a.** What is 150 + 30?
   - **b.** What is 180 + 20?
   - **c.** What is 75 + 25?
   - **d.** What is 90 + 60?
   - **e.** What is 130 + 70?

2. Subtraction
   - **a.** What is 200 – 75?
   - **b.** What is 200 – 120?
   - **c.** What is 180 – 40?
   - **d.** What is 145 – 25?
   - **e.** What is 190 – 50?

3. Doubling
   - **a.** Double 45.
   - **b.** Double 60.
   - **c.** Double 75.
   - **d.** Double 90.
   - **e.** Double 110.

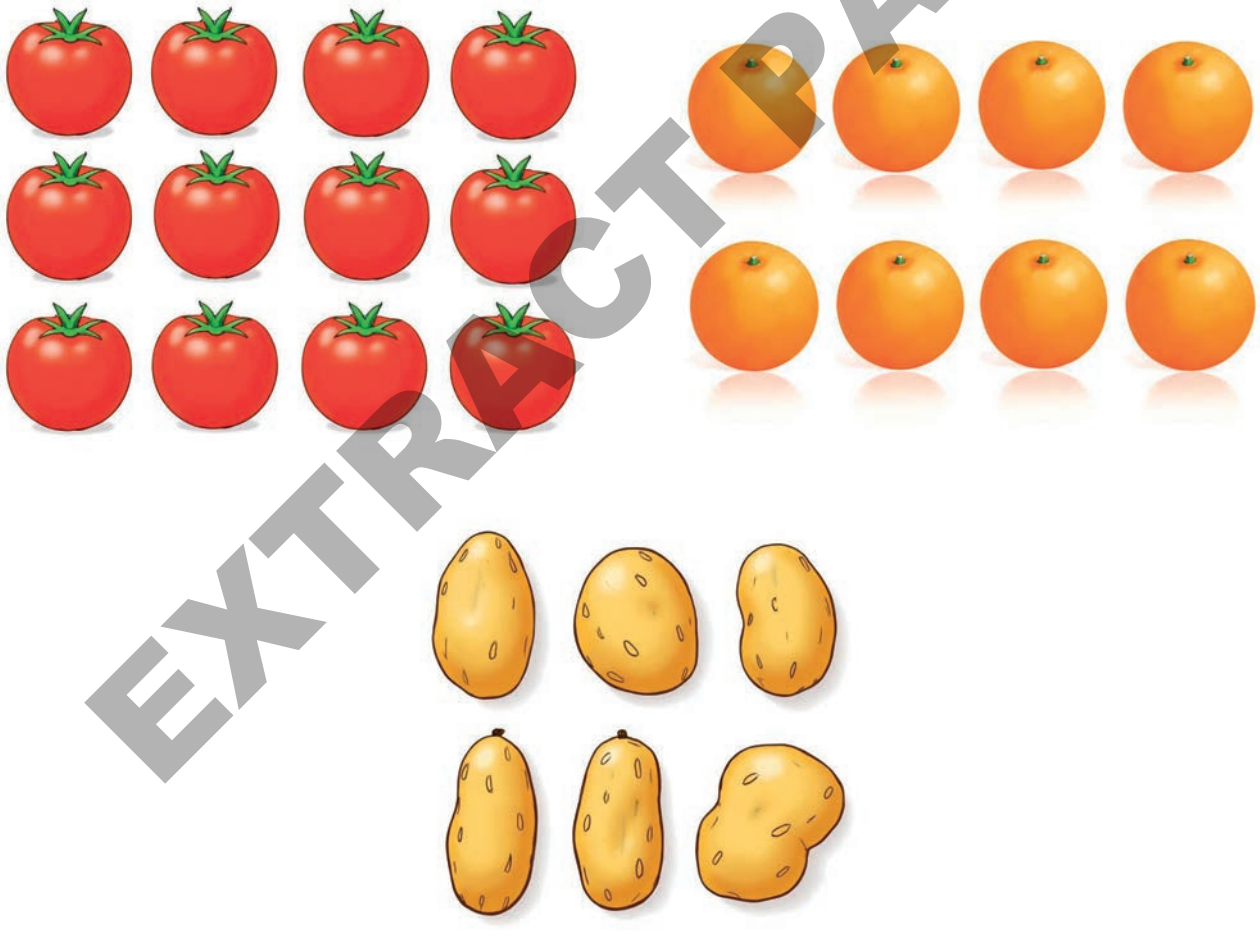
4. Halving
   - **a.** Half of 100 is ___
   - **b.** Half of 150 is ___
   - **c.** Half of 80 is ___
   - **d.** Half of 120 is ___
   - **e.** Half of 200 is ___

Let's count together

Counting is a skill we use every day. Whether we are in the kitchen, in the garden or playing with friends. Counting helps us understand things better.

Alo's food garden

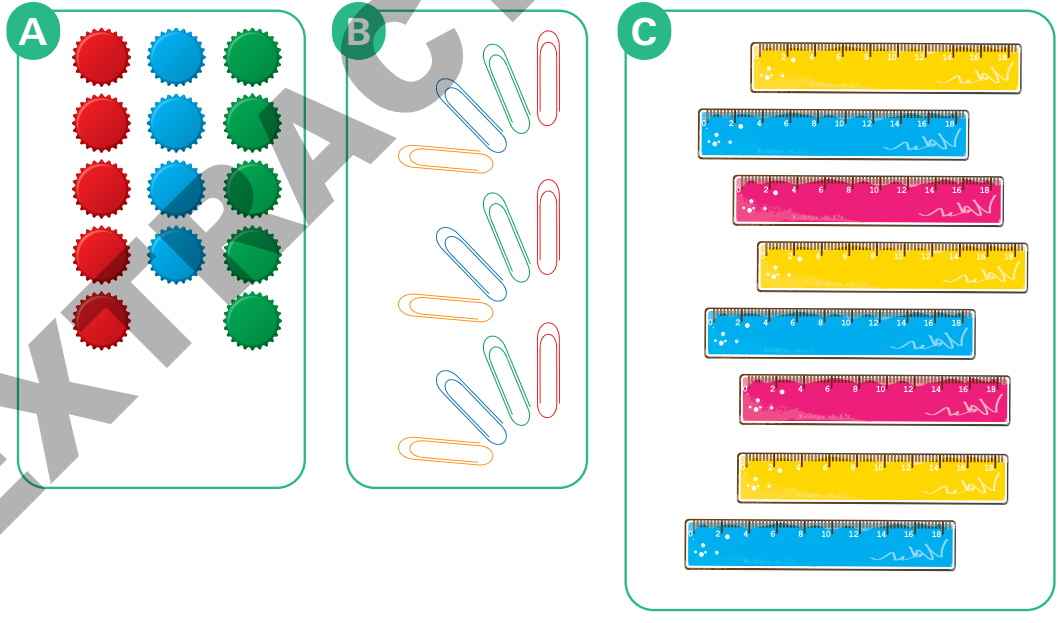
Every morning, Alo helps her mom collect vegetables from their garden. Today, they picked 12 tomatoes, 8 oranges and 6 potatoes. Counting the vegetables helps Alo know how much they have, and it makes her feel like a great helper in the garden!



Activity 1

1. Alo has 12 red tomatoes, 8 oranges and 6 potatoes.
   - **a.** How many tomatoes and oranges are there in total?
   - **b.** Does Alo have more tomatoes or more potatoes?
   - **c.** If they eat 3 tomatoes for lunch, how many tomatoes are left?
   - **d.** How many potatoes will Alo have if she collects 6 more later that day?

2. Shakeel collected the items below to practise his maths skills in solving problems.
   - **a.** How many items does Shakeel have in each picture?

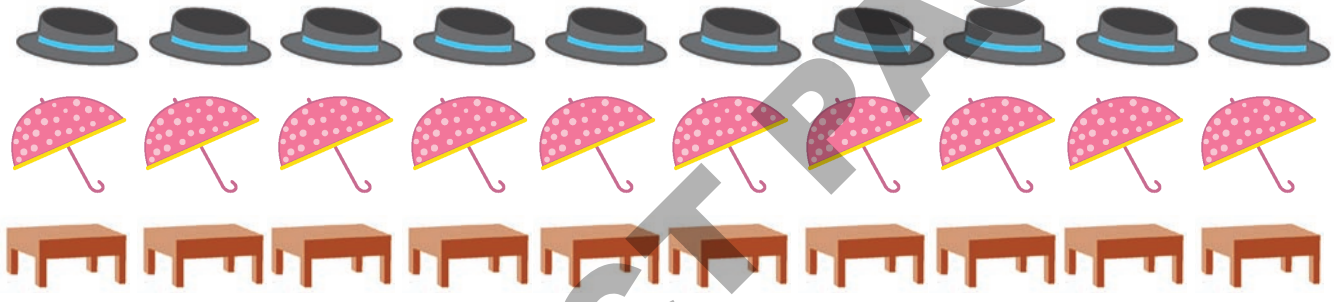


   - **b.** Write your answers to question **2. a.** as number names.

Counting objects

Counting objects is a maths skill that helps us to use numbers to understand our world. When we count objects, we see how numbers relate to the real world. Counting to 180, then to 190, and then to 200 allows us to work with larger numbers to build our counting skills.

Example: Start by counting 10 objects and grouping them together. Then count the next 10, and so on, until you reach 180.

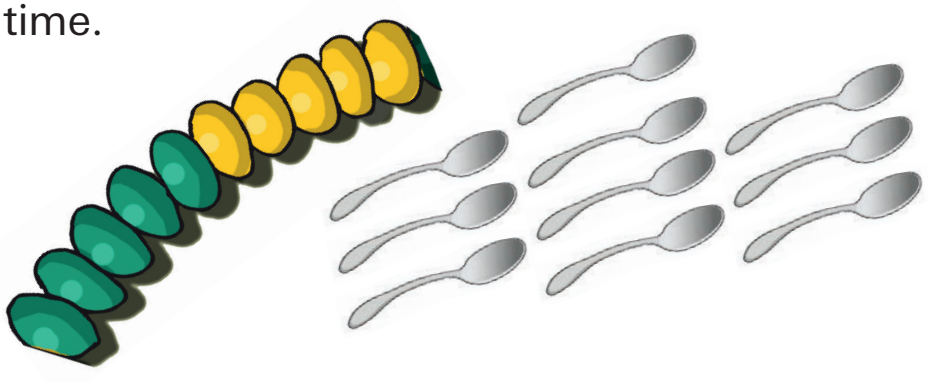


Practise counting

1. Collect a large number of small objects, like buttons, beads or bottle caps.
2. Start counting them one by one until you reach 180.

   Remember to keep track of your counting by grouping the objects in 10s.

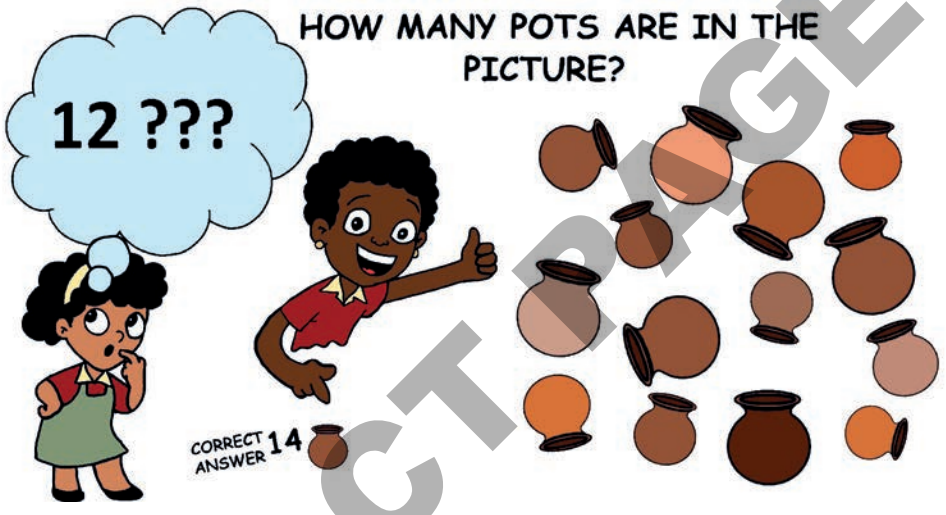
   This makes it easier to count and helps you remember where you stopped each time.



Estimating and checking by counting

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

Always check your estimate by counting to see how accurate you were.



Activity 2

Look at a group of objects. Estimate how many there are. Then count the objects carefully to see if your estimate was close.

Start with smaller groups of objects and work up to 190 objects.

Group estimation

1. Each person estimates how many objects there are in the picture below.
2. Compare your estimates.
3. Count the objects to see how accurate you were.
4. Discuss how you made your estimates.

Circle counting

Circle counting is a fun way to practise your counting skills with others. It helps build teamwork and ensures that everyone gets better at counting.

Circle counting can be done in different ways, such as counting out loud together or taking turns.

Activity 3

Divide into groups of 6 to 9 and stand in a circle.

1. **a.** Start counting in 5s.
   b. The first person says ' 5', the next person says '10' and so on until you reach 200.
   c. Repeat this activity by counting in 2s, 3s, 4s and 10s.
2. **a.** Now choose any number and begin counting in 5s until you reach 200.
   b. Repeat this activity by counting in 2s, 3s, 4s, 10s.

3. See how quickly you can count to 200. Set a timer for 5 minutes and try to beat the other groups' times. If someone makes a mistake, you must start over and try again.

4. Repeat questions 1, 2 and 3 for counting backwards.

Counting and spelling

Number symbols are the digits that are used to represent numbers. These symbols range from 0 to 9.

0 1 2 3 4 5 6 7 8 9

Number symbols are combined to form larger numbers.

For example: **25** is the combination of 20 and 5.

Number names are the words we use to express these number symbols in written form.

For example: **250** is written as **two hundred and fifty**.

Worked examples

1. Write the number 223 in words.
2. Write the number name for 123.
3. Write the number symbol for one hundred and eighty-seven.

Answers

1. two hundred and twenty-three
2. one hundred and twenty-three
3. 187

New words

Digit: parts of a number

Ones: units

Activity

1. Look at the following numbers. Say their names out loud.

2. Write the number symbols for these number names:
   - **a.** two hundred and thirty-five.
   - **b.** two hundred and twelve.
   - **c.** one hundred and ninety-nine.

3. Write the number names for these number symbols.
   - **a.** 214
   - **b.** 249
   - **c.** 238
   - **d.** 125

4. Match the number symbols with their number names.

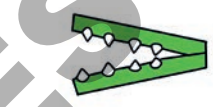
a.	246	**A.**	two hundred and twenty
b.	105	**B.**	one hundred and five
c.	148	**C.**	two hundred and forty-six
d.	220	**D.**	one hundred and forty-eight

Comparing numbers

When we compare numbers, we say that a number is **greater than**, **smaller than** or **equal to** another number. We use special symbols to help us compare.

Greater than (>): The > symbol means that the number on the left of the > sign is more than the number on the right.

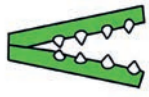
For example, 18 > 12 means 18 is greater than 12.



Greater than

Smaller than (<): The < symbol means that the number on the left of the < sign is less than the number on the right

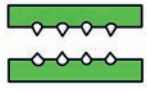
For example, 12 < 18 means 12 is smaller than 18.



Less than

Equal to (=): The = symbol means that two numbers are the same.

For example, 18 = 18 means 18 is equal to 18.



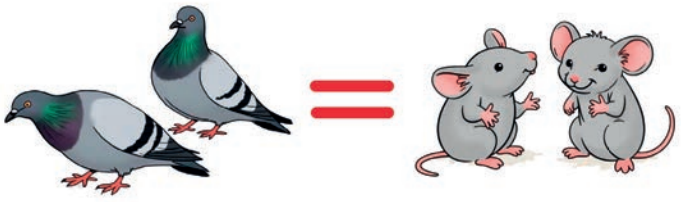
Equal to

New words

Greater than (>): bigger than (or more than)

Smaller than (<): less than

Equal to (=): the same



Activity

1. Compare the numbers. Then use >, < or = to make each statement true.
   - **a.** 2 ___ 5
   - **b.** 5 ___ 2
   - **c.** 17 ___ 10
   - **d.** 10 ___ 17
   - **e.** 32 ___ 27
   - **f.** 45 ___ 40 + 5
   - **g.** 40 + 5 ___ 40 + 5
   - **h.** 45 – 5 ___ 40 + 5
2. Compare which number is greater than, less than or equal to.
   - **a.** 34 and 57
   - **b.** 64 and 72
3. Use >, < or = to make each statement true.
   - **a.** 95 ___ 59
   - **b.** 81 ___ 93
   - **c.** 73 ___ 82
   - **d.** 27 ___ 77
   - **e.** 99 – 5 ___ 90 – 4
   - **f.** 81 + 14 ___ 90 + 5
4. Which number is smaller? Write the numbers and the <.
   - **a.** 78 and 92
   - **b.** 108 – 16 and 79 + 20

3. **a.** Which is greater, 45 or 37?
   - **b.** Which number is less, 69 or 96?
   - **c.** Lewis had R50 for lunch while Andi had R70. Who had more money for lunch?

Breaking down big numbers

Identifying the value of each digit

Place value refers to the position of a digit in a number.

For example, the place value of the 3 in 135 is 3 tens or 30.

Value refers to what the number consists of when you break it up.

For example, the value of the tens digit in the number 55 is 50. because 50 is made up of 5 tens: 10 + 10 + 10 + 10 + 10 = 50.

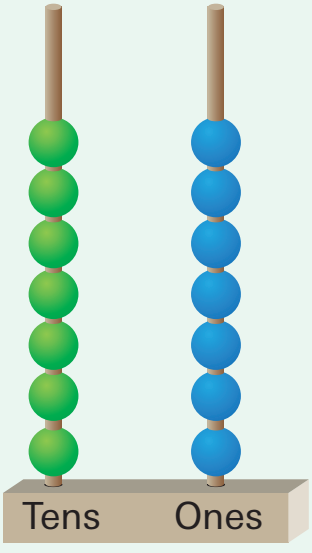
New words

Identify: to indicate who or what

Recognise: identify something familiar

Worked examples

1. Write down the value represented by tens.
2. Write down the value represented by ones.
3. Write down the total number in a form of a sum: tens + ones = tens ones
4. Write the number name of your answer.



Answers

1. 7 tens
2. 7 ones
3. 70 + 7 = 77
4. seventy-seven

Worked example

Thabo is buying apples for the class. Thabo already has 24 apples. He buys 15 more apples. How many apples does he have in total?

Answer

What is 24 + 15? To find out, write the numbers in a place value table.

1. Add the ones column: 4 + 5.

Tens	Ones
2	4
1	5
	9

2. Now, add the tens column: 2 + 1.

Tens	Ones
2	4
1	5
3	9

Thabo now has 24 + 15 = 39 apples.

Activity

1. Sipho has 38 stickers. He gets 21 more stickers from his friend. How many stickers does Sipho have in total?

2. Use a place value table to find the answers.

   a. 24 + 45 = ☐
   b. 56 + 13 = ☐
   c. 70 + 11 = ☐
   d. 42 + 53 = ☐
   e. 61 + 26 = ☐
   f. 64 + 32 = ☐

Money problems

Worked example

Tebogo goes to the shop to buy fruit for his family. He buys 2 apples for R5 each, and 3 bananas for R3 each. He has a R20 note. How much change he will get back?

Answer

First Tebogo must work out the total cost.

2 apples for R5 each	= R5 + R5	(or = 2 × R5)
	= R10	(also = R10)
3 bananas for R3 each	= R3 + R3 + R3	(or = 3 × R3)
	= R9	(also = R9)
R10 + R9 = R19	so R19 is the total cost	

Tebogo has a R20 note. He needs to subtract the total cost of R19 from R20.

R20 – R19 = R1.

Tebogo will get R1 change.

New words

Total cost: how much money is needed altogether

Change: the money you get back

Activity

Work out the change. Explain to your partner how you did the calculation.

1. You buy 3 notebooks for R7 each, and 2 pencils for R2 each. You pay with R50. How much change will you get?

   Total cost = ___ + ___ = ___.

   Change = R50 – ___ = ___.

2. You purchase 4 oranges at R4 each and 1 melon for R12. You pay with R30. How much change will you get?

   Total cost = ___ + ___ = ___.

   Change = R30 – ___ = ___.

3. You spend R15 on 5 toy cars. You pay with R20. How much change do you get?

   Total cost = ___.

   Change = R20 – ___ = ___.

Zama's bead pattern braids

Zama loved going to the salon with her mom to get her braids done. This time, she wanted to add beads and use her maths knowledge to make them special. She decided to have 9 braids with 4 beads each. If she calculates the number of beads needed for the 9 braids, she will need 36 beads. Zama laid out her beads in perfect order, and the stylist smiled as they were added to her braids. Proud of using maths, Zama realized multiplying made her hair look amazing too!

Worked examples

1. Show 4×9 as repeated addition.
2. Divide by sharing: $36 \div 4$

New words

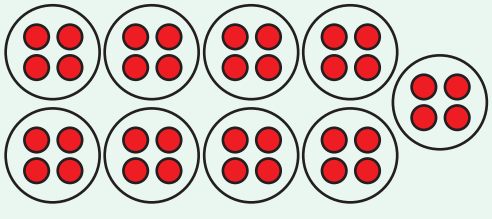
Multiplication: repeated addition

Division: splitting a number into equal parts

Answers

1. $4 \times 9 = 9 + 9 + 9 + 9 = 36$

2. $36 \div 4 = 9$



Activity 1

1. Copy and complete each division. Use the worked example to help you.

   a. 40 ÷ 5 = ☐ **b.** 30 ÷ 10 = ☐

   c. 24 ÷ 2 = ☐ **d.** 50 ÷ 10 = ☐

   e. 40 ÷ 5 = ☐ **f.** 30 ÷ 2 = ☐

2. Copy and complete each multiplication using repeated addition.

   a. 6 × 3 = ☐ **b.** 4 × 5 = ☐

   c. 5 × 5 = ☐ **d.** 3 × 7 = ☐

   e. 2 × 8 = ☐ **f.** 4 × 4 = ☐

   g. 3 × 12 = ☐ **h.** ☐ × 2 = 12

   i. ☐ × 2 = 18 **j.** 5 × ☐ = 30

3. Multiply.

   a. 4 × 5 = ☐ **b.** 3 × 7 = ☐

   c. ☐ × 2 = 18 **d.** 5 × ☐ = 30

   e. 4 × 4 = ☐ **f.** 10 × ☐ = 40

4. Divide.

   a. 40 ÷ 5 = ☐ **b.** 24 ÷ ☐ = 12

   c. ☐ ÷ 2 = 15 **d.** 50 ÷ ☐ = 5

   e. 30 ÷ 10 = ☐ **f.** ☐ ÷ 5 = 8