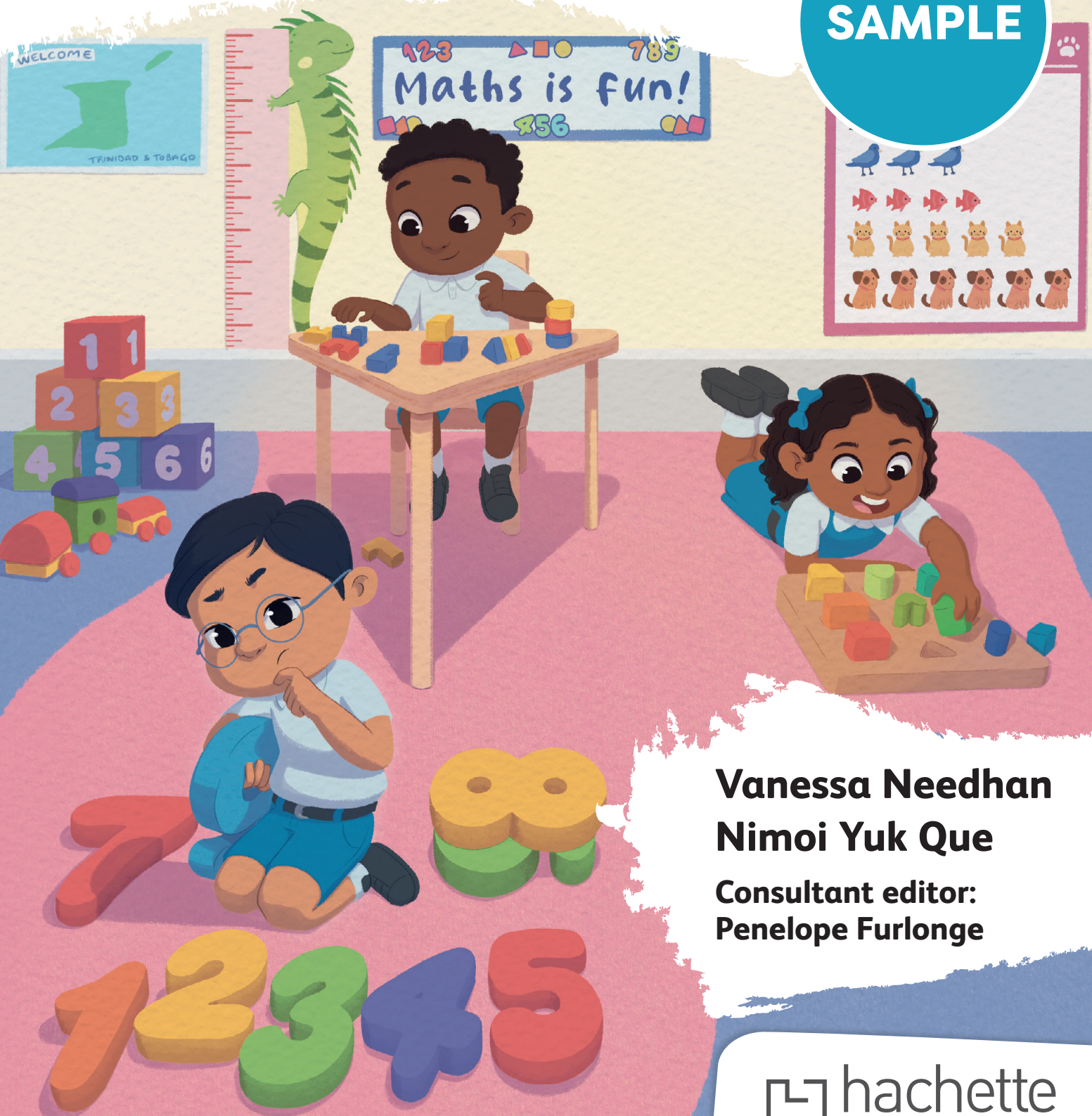


SmartMaths

Infant 2

SAMPLE



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Stage	Pupil's book	Boost eBook
SmartMaths Infant 1	9781036012052	9781036017552
SmartMaths Infant 2	9781036012069	9781036017569
SmartMaths Standard 1	9781036012076	9781036017576
SmartMaths Standard 2	9781036012083	9781036017583
SmartMaths Standard 3	9781036012090	9781036017590
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SmartMaths Boost Teacher's Guide		9781036013417

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How to use this book

This Student's Book meets the content, skills, dispositions, outcomes and elaborations specified for Infant 2 in the primary curriculum for Trinidad and Tobago. It aims to make sure that, at the end of Infant 2, each student will be well prepared for the transition to Standard 1.

The mathematics curriculum is divided into four broad strands: Number, Geometry, Measurement and Statistics. Chapters are colour-coded to show which strand they belong to. The content for each strand appears in the same order in which it appears in the curriculum.

More information on curriculum coverage can be found in the 'Curriculum mapping' document on our website.

SECTION

1

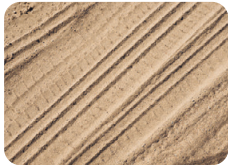
Chapter 4 Number patterns

In this chapter, you will:

- arrange dots and objects up to ten
- explore patterns using repetitions of two to four elements.

Starting point

1 Look at the pictures of objects from our environment.



tyre tracks



tiger



leaf



music notes

We can see patterns in the objects. Discuss in your groups about what looks the same.

Patterns all around

Patterns are everywhere.



clock



game of cricket



sports equipment

A **pattern** is an **arrangement** of numbers, shapes, colours or much more.

Key words
pattern
arrangement

2 Circle the correct number of objects in each set.

a 11 butterflies



b 12 birds

At the start of each chapter, you will find an **Objectives** box that lists key content and skills.

The **Starting point** activity stimulates discussion and curiosity.

Eye-catching photographs and illustrations stimulate students' interest.

Key words boxes highlight the key vocabulary that students will need to know.

Key maths idea boxes explain concepts and provide examples.

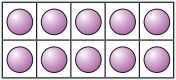
Numbered questions provide practice tasks for students.

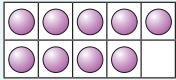
As students work through the chapters, they will find the following features:

- **Mental maths:** This feature includes short questions for students to work out mentally (in their heads).

Mental maths

1 What numbers are shown on the ten frames?

a  _____

b  _____

2 Draw 12 counters in two ways.

- **Problem solving:** This feature gives students a chance to apply their mathematical skills to problem-solving scenarios using the strategies they have learnt.

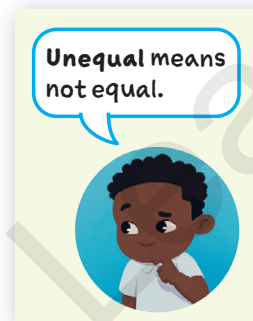
Problem solving ?

Act it out
Kumar wants to buy a snack for 12 dollars. Draw the bills he needs to buy this item.

Steps:

- 1 **Read:** The snack costs 12 dollars.
- 2 **Plan:** Use play dollars to make 12 dollars.
- 3 **Solve:** Count out 10 dollars and 1 dollar and 1 dollar, or 5 dollars and 5 dollars and 1 dollar and 1 dollar.
- 4 **Check:** Count all the money.

- **Hints:** This feature supplies additional background information, reminders or links to concepts that have appeared elsewhere.



Each chapter ends with a **Review** page, which comprises:

- **Key terms and concepts:** Vocabulary questions that check students understand the main terms and concepts presented in the chapter.
- **Quick check:** Short questions that revise the mathematics covered through the chapter.
- **Challenge and investigate:** Long questions or activities that can extend beyond the main curriculum for students who need to be challenged.

Go to our website:
www.hachettelearning.com/mathematics/smartmaths-infant-2
 for free access to the following:

- Additional content
- Answers
- Glossary
- Curriculum mapping

Review: Number names and numerals 2

Review: Number names and numerals 2

Key terms and concepts

- 1 Read the statements. Fill in the blanks.
 - a 16, 17, 18, 19 are examples of _____.
 - b We can order numbers from _____ to most.
 - c Money can be in the form of bills and _____.

Quick check

- 1 What number comes before 19 when you count in ones? _____
- 2 Draw 18 counters on the 10 frames.
- 3 Draw lines to match the numbers with their number names.

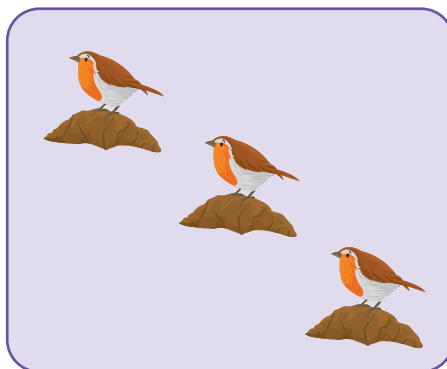
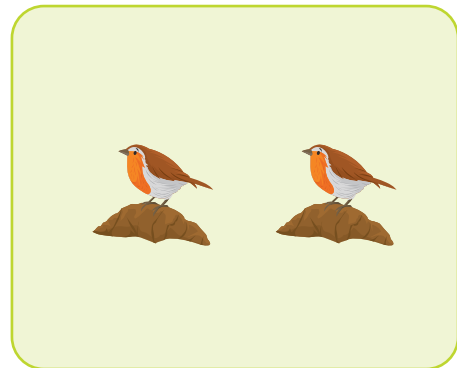
20	seventeen
17	eighteen
18	twenty
- 4 Compare the numerals. Write **more than** or **less than**.
 - a 15 dollars is _____ 16 dollars
 - b 13 dollars is _____ 14 dollars

Challenge and investigate

- 1 Find 17 red pencils. Count them with your friend.
- 2
 - a Show 20 cents using 3 different types of coins.
 - b Place the coins in order from the **largest** to the **smallest** value.

In this chapter, you will:

- count to 100 and back down
- explore the concept of numbers 0 to 20
- recognise that the number remains the same when objects are moved
- estimate the number of objects in a set using 10 as a benchmark
- put objects in order up to tenth position
- explore the value of bills and coins.

Starting point

- 1 Discuss these pictures with a friend.
- 2 How many birds are there in each picture?

Rote counting to 100

Key words

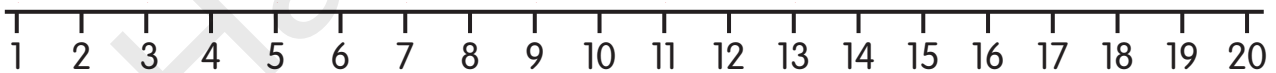
count on
count back

Get ready to move! Follow the instructions as you **count on**.

Clap your hands	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
Stamp your feet	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
Wiggle your body	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
Jump on the spot	61	62	63	64	65	66	67	68	69	70
	71	72	73	74	75	76	77	78	79	80
Chicken dance	81	82	83	84	85	86	87	88	89	90
	91	92	93	94	95	96	97	98	99	100

Now **count back** from 100 to 1.

1 Read the numbers on the line below.



2 Count on. Cross out (X) the number that does not belong in each row.

a 11 12 13 14 25 15

b 16 17 12 18 19 20

c 13 12 20 11 10 9

d 18 17 16 12 15 14

Counting numbers to 100

Study the picture.

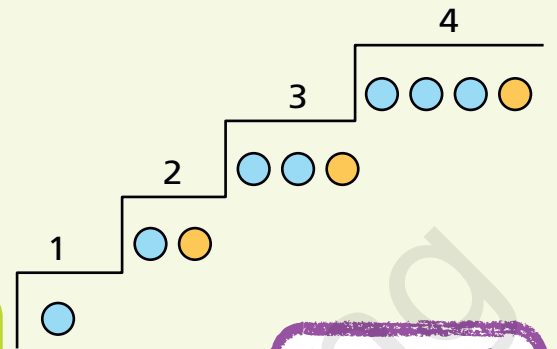
The **next** number is 1 more than the number **before**.

Sing the rhyme:

1 step, 2 steps, 3 steps, 4

We moved 1 more

One, two, three, four.



Key words

next
before

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

1 Use the chart to **count on**. Circle one more.

a 14 and 1 more is **16 / 15**

b 19 and 1 more is **20 / 18**

c 16 and 1 more is **18 / 17**

Mental maths



1 Count on one more.

a 5, 6, 7, 8, 9, _____

b two, three, four, five, _____

Concept of zero

Zero has an important job.

Let us count from 0 to 20.

0 1 2 3 4 5 6 7 8 9 10
11 12 13 14 15 16 17 18 19 20

Key word

zero

Trace the number.

Write the number next to its name.

zero _____



Did you know
zero is a hero?
Zero helps other
numbers to grow!

Zero means
none, no one,
empty, nothing.



1 Circle the number that tells how many.





















a 0 1 2 3

b 0 1 2 3

c 0 1 2 3

d 0 1 2 3

2 Colour the hearts to match the number.

8										
0										

Problem solving










Act it out

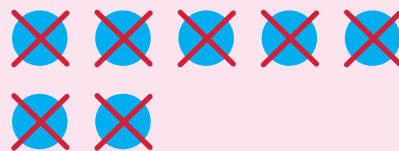
There are 7 birds on a tree. They all fly away. How many are left?



Steps:

- 1 **Read:** How many birds are left?
- 2 **Plan:** Draw 7 birds or use counters.
- 3 **Solve:** Lay 7 counters on a frame. Now remove 7. Count how many remain. You can also cross out (X) 7 counters.



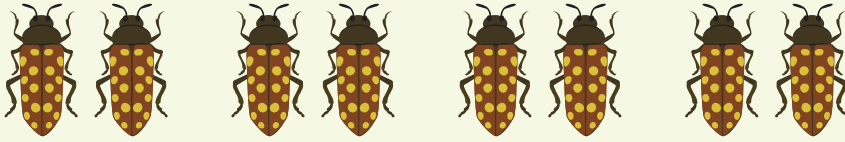
The frame is empty. There are no counters left to cross out (X).

- 4 **Check:** 7 take away 7 is 0. There are zero birds left.

Skip counting in 2s

Skip counting is the skill of adding a number again and again.

Key words
skip counting



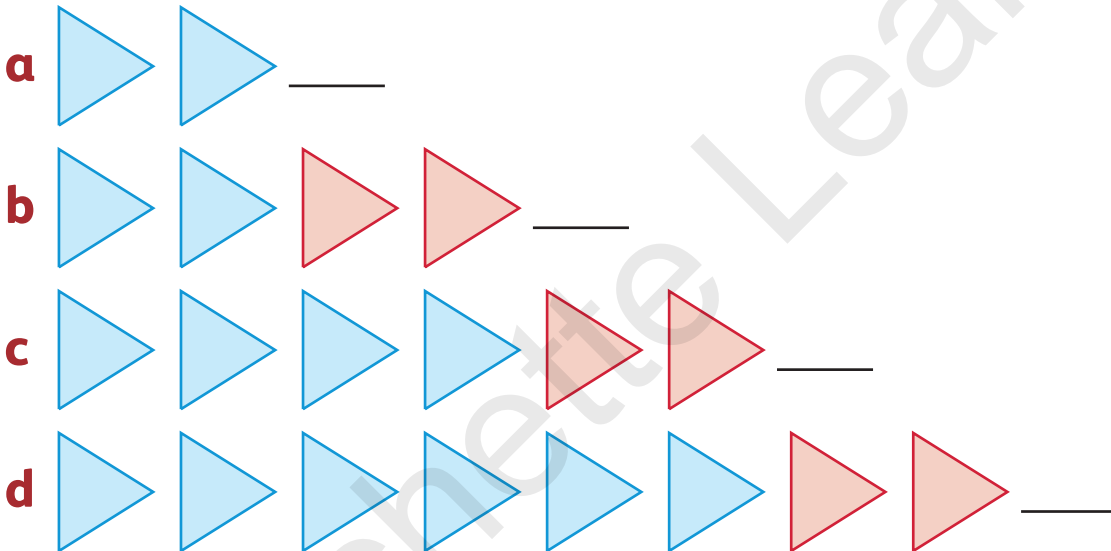
2 and 4 and 6 and 8

2 and 2 more is 4

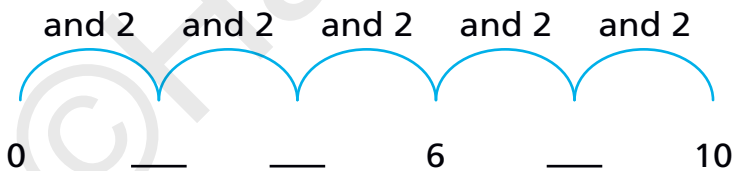
4 and 2 more is 6

6 and 2 more is 8

1 Skip count the shapes. Write the number.



2 Complete the jumps.



Mental maths



1 5 and 2 more is _____

2 Fill in the next number: 3, 5, 7, _____

Skip counting in 5s

Key words
dollar
bill

Counting on our fingers

Let us count using our fingers.



5

and



10

and



15

and



20

The skip count song

Sing the skip count song:

5, 10, 15, 20,

Skip counting by 5s is plenty!

We jump and count, it's so much fun,

Five more each time, till 20 is done!

Counting money

Let us count the money.



5 **dollars** and 5 dollars and 5 dollars and 5 dollars

Look at each **bill**. **Count on** by 5s: 5, 10, 15, 20.

1 Fill in the missing numbers.

0	5		15
---	---	--	----

2 Count and write the number for each yellow balloon.

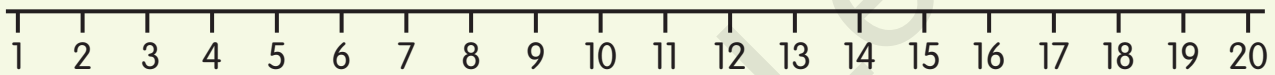


Counting objects to 20

Read the numbers below from 1 to 20.

1	2	3	4	5	6	7	8	9	10
one	two	three	four	five	six	seven	eight	nine	ten
11	12	13	14	15					
eleven	twelve	thirteen	fourteen	fifteen					
16	17	18	19	20					
sixteen	seventeen	eighteen	nineteen	twenty					

Instead of a number chart, we can use a number line.



1 Count the dots in the 10 and 20 frames. Write the numbers.

a

●	●	●	●	●

b

●	●	●	●	●
●	●	●		

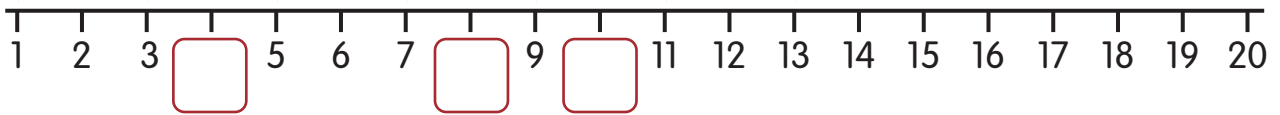
c

●	●	●	●	●
●	●	●	●	●
●	●	●	●	●
●	●	●	●	●



You can use the numbers above to help you.

2 Fill in the missing numbers on the number line.



Count on, count back

To **count on**, we add one **more** every time.

1 and one more is 2

2 and one more is 3



To **count back**, remove 1 so the number becomes

1 **less** every time

10 with one less is 9

9 with one less is 8

Key words

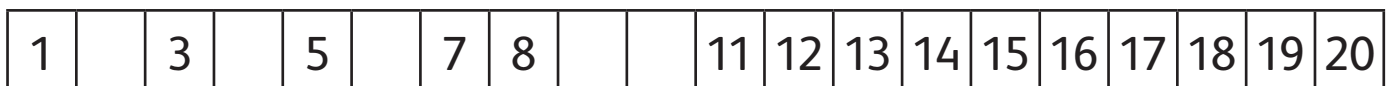
more
less
bigger
smaller



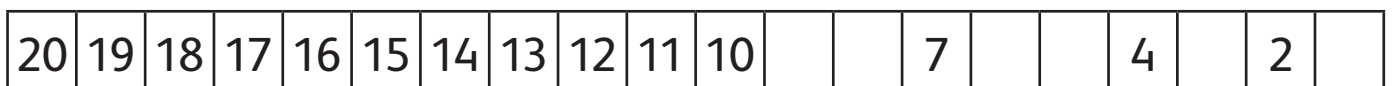
The number gets **bigger** when you **count on**.

The number gets **smaller** when you **count back**.

1 Write in the missing numbers as you **count on**.

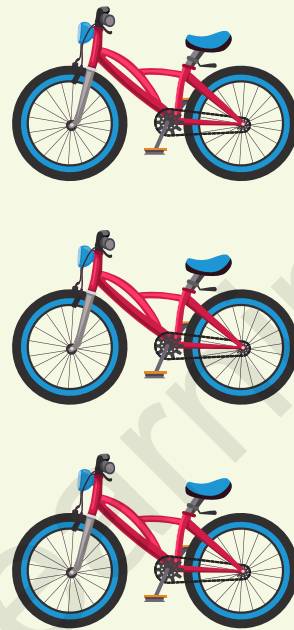


2 Write in the missing numbers as you **count back**.



One-to-one correspondence

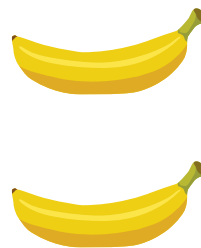
Are there enough bicycles for each child? Let us count and match.



There are 3 bikes. There are 4 children. No, there are not enough bicycles for each child.

One-to-one correspondence is pairing each object with one other object.

1 Draw lines to match the objects.



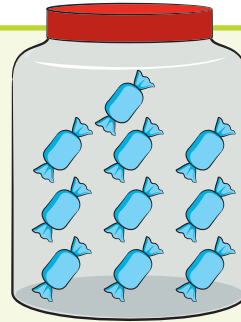
2 Fill in the blanks.

a There are ____ monkeys. **b** There are ____ bananas.

3 Did each monkey get a banana? **Yes / No**

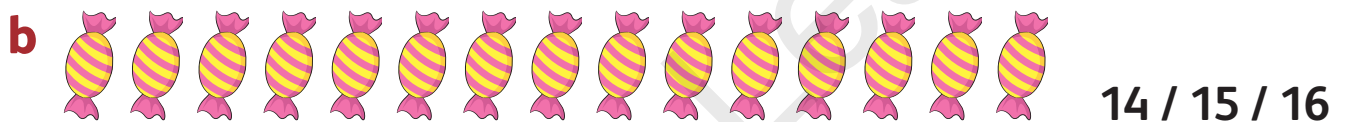
Last count to 20

Count the candy in the jar.
The **last** number tells you the amount.
There are 10 pieces of candy.



Key word
last

1 Count. Circle the last number that you count in the group.



Objects in 2 sets

Touch each strawberry as you count how many there are in each set.



6 strawberries



3 strawberries

Here, we can see 6 is **more than** 3.

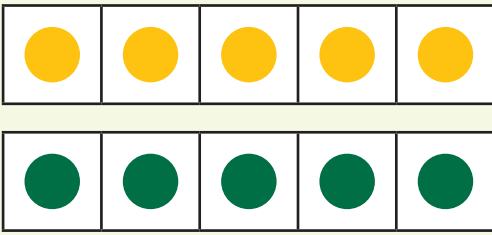
Touch each block as you count how many in each set.



Here, we can see 3 is **less than** 5.



Look at the five frames. Count the dots.



Key words
same as

Here, we can see 5 is the **same as** 5.

1 Count the number of cupcakes in each set.



Fill in the blanks.

- a There are ____ strawberry cupcakes.
- b There are ____ chocolate cupcakes.
- c ____ is more than ____.

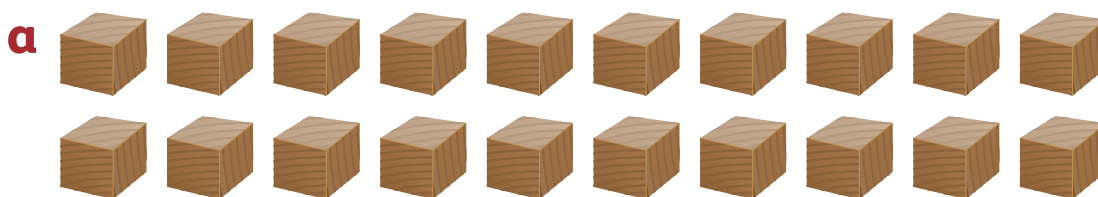
Conservation to 20

We can count the same number of objects in different ways.

Look at the dominoes. Count the dots.

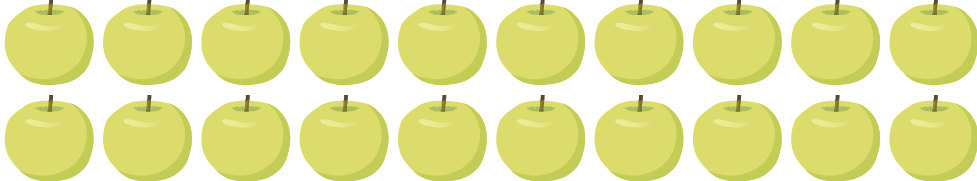


1 Count the objects. Circle the correct number.



19 / 20

b  20 / 18

c  15 / 20

2 What do you notice about the number of objects?

Mental maths

Get ready to sing!

Subitize, Subitize

Use your brain and your eyes
Think quick! Do not stick!
Say the number **really** quick.



Key word

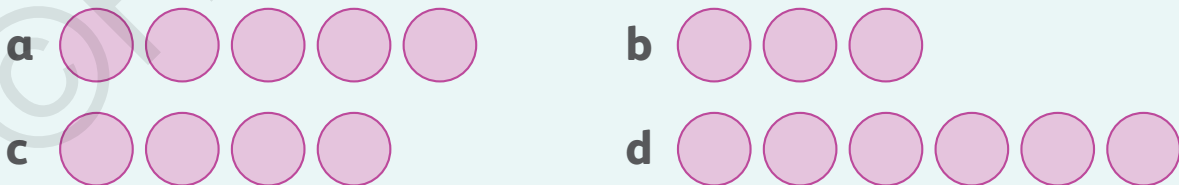
subitize

Subitize means to work out the number of objects without counting.

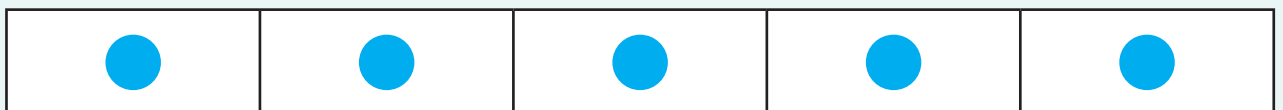
1 Look at the number of fingers on each hand. Say the number **really** quickly!



2 **Subitize** it! Say the number.



3 Mona's teacher asked her to put 5 counters on her five frame. Is Mona correct?



10 as a benchmark

Can you **guess** the number of bananas?

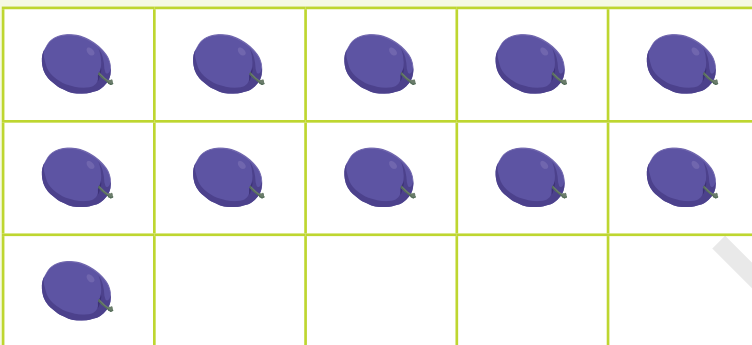


There are 4 bananas.

We have just **estimated** the number of bananas.

Estimate means a close guess.

Estimate the number of plums.



The exact amount is 11.

Key words

guess
estimate

I think there are **fewer than 10**. Let us count to check.



My **estimate is more than 10**.



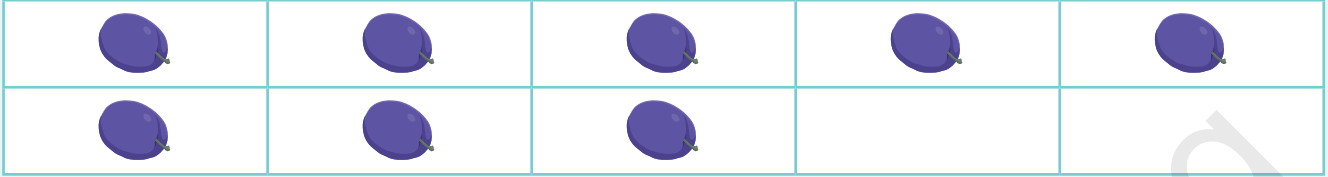
1 **Estimate** the number of objects in each box. Use the words **more than 10** or **fewer than 10**. Count the exact amounts.

	Objects	My estimate	Exact amount
a			
b			



Mental maths

Look at the picture. How many plums are there? **More than 10** or **fewer than 10**?



Ordinal numbers to ten

Get ready to move your body!

Stand up.

Let us follow ten exercises to stay healthy.

first	Touch your toes.
second	Stand up.
third	Jump forward.
fourth	Jump back.
fifth	Head up.
sixth	Head down.
seventh	Touch the sky.
eighth	Hands down.
ninth	Turn around.
tenth	Sit down.

Key words

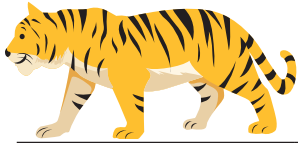
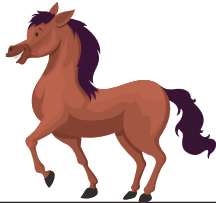

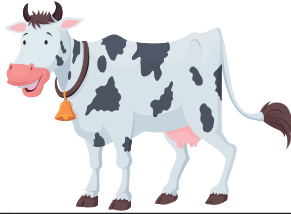

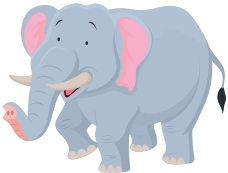




first
second
third
fourth
fifth
sixth
seventh
eighth
ninth
tenth

You did it! You have learnt ordinal numbers.

Ordinal numbers tell us an item's position in a list.

Say the words: first, second, third, fourth, fifth, sixth, seventh, eighth, ninth, tenth.

1 Fill in the missing positions. Then complete the questions.

				
first	second			
				
sixth				tenth

- a** Which animal is in third position? _____
- b** What position is the frog? _____
- c** Which animal is in fourth position? _____
- d** If the cow passed the duck, what position would the cow be in?

- e** Name the fastest animal. _____
- f** Name the slowest animal. _____

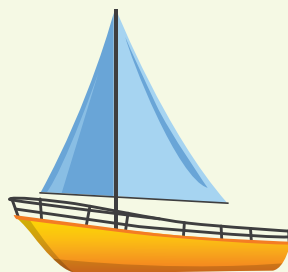
First and last

Look at Tobago's Great Race. Each boat has a position.

first  last



first



second



third

We can see the results are first, second and third positions.

Bills and coins

Money in the Republic of Trinidad and Tobago is made up of **coins** and bills of different colours.

Key words

coin
cent

Money	Value	Colour
	5 cents	bronze
	10 cents	silver
	25 cents	silver
	1 dollar	red
	5 dollars	green
	10 dollars	grey
	20 dollars	purple

Sing the money song:

One dollar, two dollars, three dollars bright,
Let's count our money, it feels just right!
Coins that jingle, notes that fold,
Money can be shiny, silver and gold.

1 Circle the 10 cent coin from the set.



2 Circle the twenty dollar bill.



3 Colour the bills.

1 dollar

5 dollars

10 dollars

20 dollars

Problem solving ?

Act it out

Kaitlyn wants to buy one doubles. It costs 5 dollars.

Circle the money Kaitlyn needs.



Steps:

- 1 **Read:** One doubles costs five dollars.
- 2 **Plan:** Count five of the 1 dollar bills.
- 3 **Solve:** Circle five bills.
- 4 **Check:** Count on to 5.



Review: Number concepts

Key terms and concepts

1 Fill in the blanks.

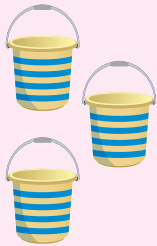
a To count _____, we move one more.

b To count _____, we move one less.

Quick check

1 Count from 1 to 100 with your classmates.

2 **a** Draw lines to match the spades to the buckets.



b Circle the correct answer.

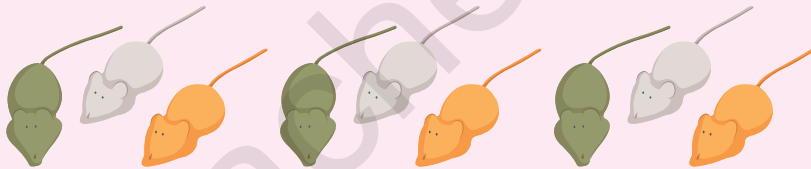
Are there enough buckets for each spade? **Yes / No**

3 Count the lollies. Then circle the last number that you counted.



10 / 11 / 12

4 Touch the objects as you count. Write how many there are.



_____ mice

Challenge and investigate

1 Get into groups of 5. You will need one dice. Take turns to roll the dice. Say your number aloud.

2 **a** Ask your teacher to draw a hopscotch game on the ground using chalk, and to call out ordinal numbers.

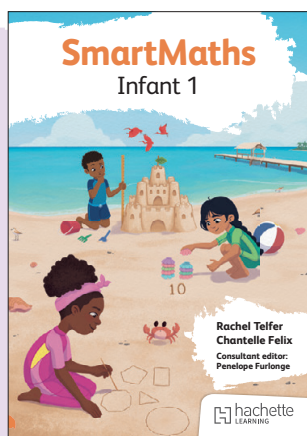
b Hop to the ordinal numbers your teacher calls.

3 Work in 3s. Find a clear space to run. The first student to run 20 steps wins the game. Write who came first, second and third.

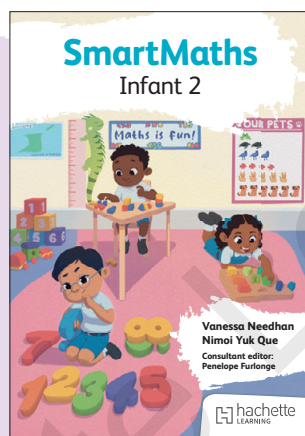
first place: _____ second place: _____ third place: _____

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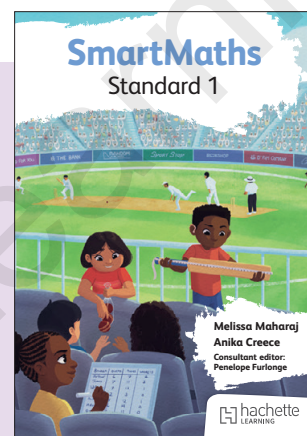
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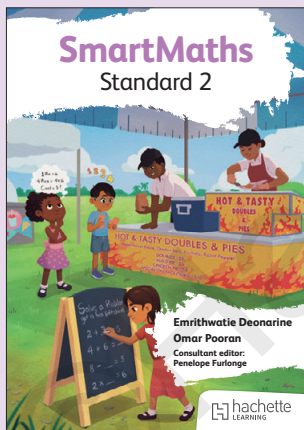
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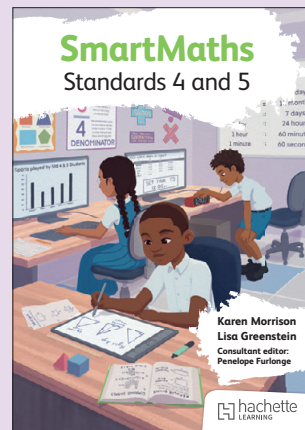
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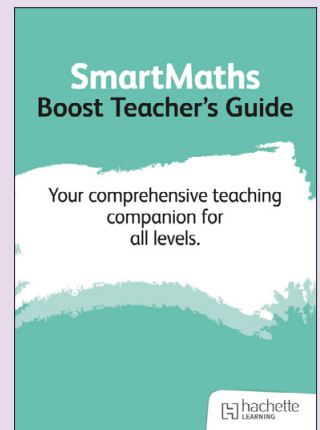
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