NEXT STATION 4

CLIL BOOK

2nd Edition

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macmillan education

CONTENTS

	SUBJECT	THEME	LANGUAGE	MY LEARNING GOALS
UNIT 7 **GRAPHS** pages 40-45	**Math**	Statistics and Probability	• graphs (line graph, bar graph, quantities, pattern, trend, data, values, axis, points) • Is the population going to increase or decrease? / This graph shows how data sets vary over time.	Read, interpret, and create graphs
UNIT 8 **A HEALTHY DIET** pages 46-51	**Science**	Life and Evolution	• food groups (nutrients, nutritional properties) • health (muscle, infections, bones, teeth, healthy, illness) • vitamins and minerals (diseases, metabolism, calcium, iron, zinc) • Protein builds muscle, helps us grow, and fights infections. / Dairy products make our bones and teeth healthy.	Identify healthy habits
UNIT 9 **GYMNASTICS** pages 52-57	**PE**	Gymnastics	• abilities (do a cartwheel, do a handstand, do a somersault, do a split, juggle) • gymnastics (rhythmic, acrobatic) • gymnastic equipment (apparatus, rope, hoop, ball, ribbon) • movements in gymnastics (cartwheel, backward somersault, straight jump, round off) • She / He can do a split.	Understand basic concepts related to gymnastics
UNIT 10 **ART AND TECHNOLOGY** pages 58-63	**Art**	Integrated Arts	• visual arts (painting, drawing, sculpture, photography), applied arts (architecture, fashion design, wood crafts), performing arts (dance, singing, films), 3D printed art, virtual Internet art and electronic art, Internet art, augmented reality, stop motion • Technology has provided artists with new tools for expression.	Explore different technological resources

ICONS

ZOOM IN
Activities to interpret the picture of the unit opener pages

LISTEN
Audio tracks to practice listening skills

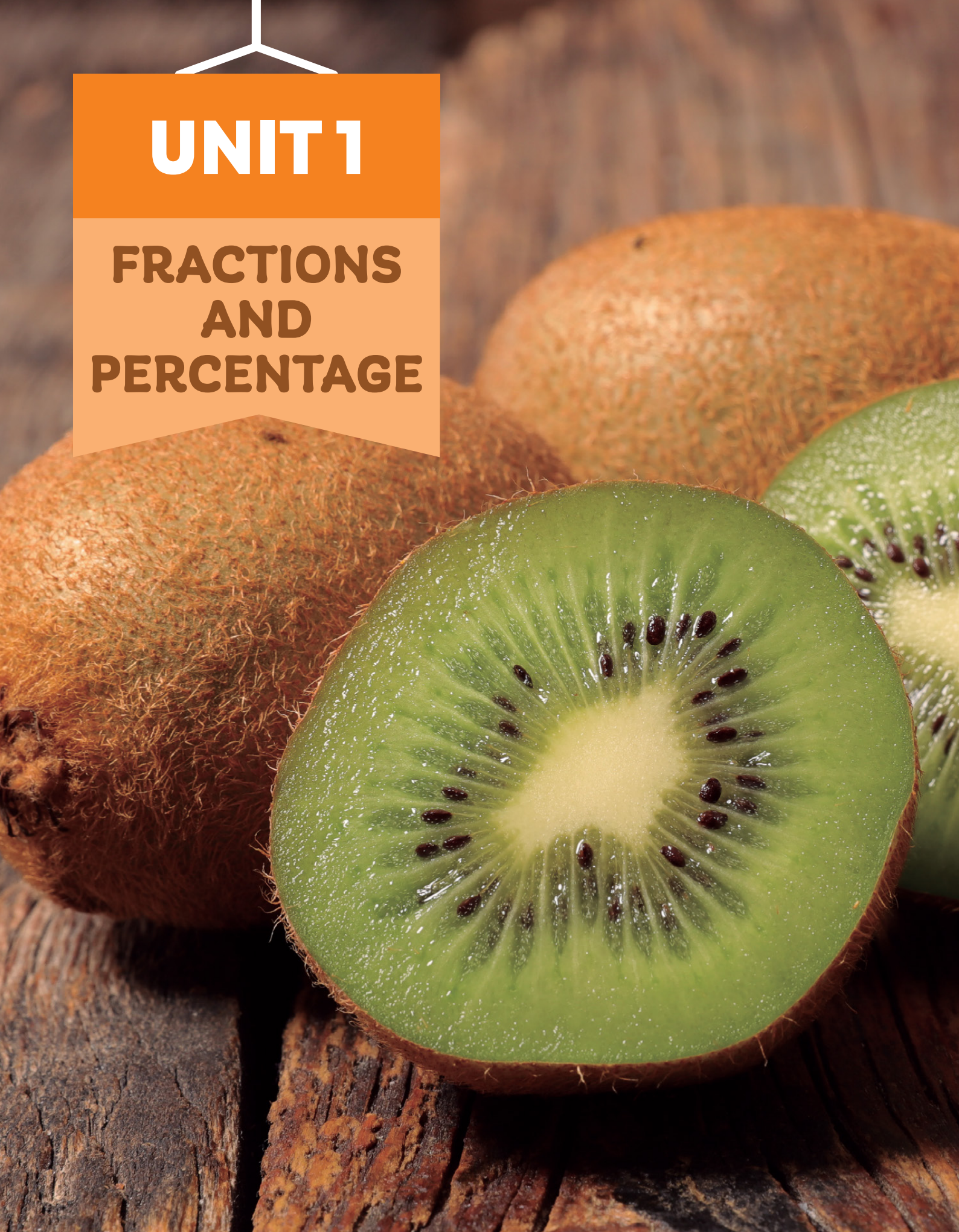
BE

THINK

LEARN

COLLABORATE / COMMUNICATE

ACT



UNIT 1

FRACTIONS AND PERCENTAGE

New Zealand is one of the world's top kiwifruit exporters.

Did you know that New Zealand's national bird is the kiwi?

Why do you think the fruit is named after this bird?

ZOOM IN

Look at the picture.

How many whole kiwifruits can you see?

How many kiwifruit halves are there?

Which fraction represents a half?

$\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{5}$

MATH

1 **1** Listen and read.

Fraction of a Whole

Fractions represent the number of **equal parts** of a **whole**.

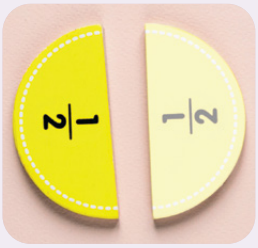
This is an entire kiwifruit. It is represented by the number **1** (a whole).

If we divide the fruit into two equal parts, one of these parts is **1/2**.

If we divide the fruit into four equal parts, one of these parts is **1/4**.

The **numerator** shows how many parts we have.
The **denominator** shows how many equal parts the whole kiwifruit was cut into.

3 ← numerator
5 ← denominator



one half

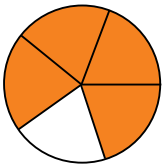
one third

one fourth or one quarter

one fifth

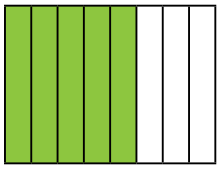
2 Match each fraction with its proper visual representation.

~~4/5~~ 3/9 1/4 5/6 5/8

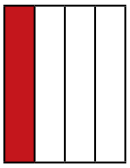


1 four fifths

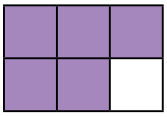
4/5



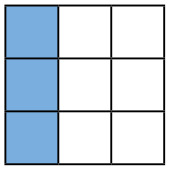
2 five eighths



3 one fourth



4 five sixths

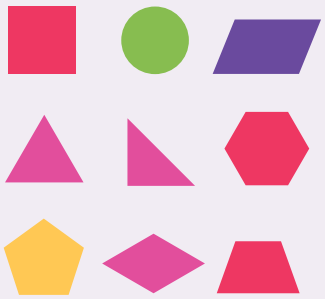


5 three ninths

2 3 Listen and read.

Fraction of a Set

Fractions are also used to represent **parts of a set**.



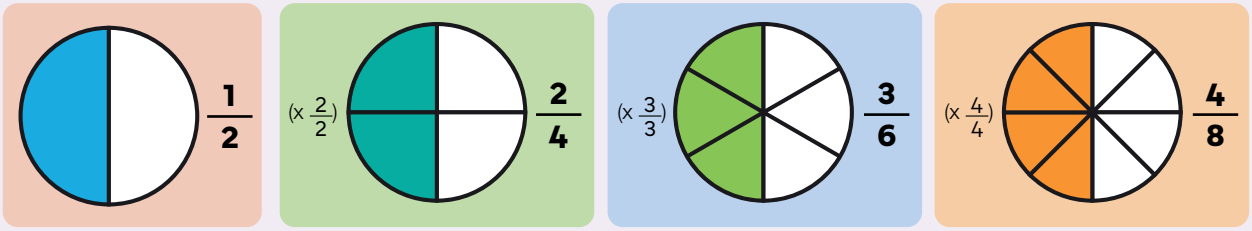
Here is a set of 2D shapes.

How many shapes are triangles?
2 out of 9 are triangles. We can write this as a fraction: **2/9** (two ninths)

How many shapes have four sides?
4 shapes out of 9 = **4/9** (four ninths)

Equivalent Fractions

Some fractions are equivalent.
Equivalent fractions are fractions that represent the same value or proportion of the whole.



In order to get an equivalent fraction, multiply the numerator and denominator by the same number. The fractions above are represented using a circle, also called a **pie chart**.

4 Solve the problems.

1 Katie opened a pizza box. Inside, there was 6/8 of a pizza. She ate 1/2 of what was left. How much of the whole pizza did she eat?

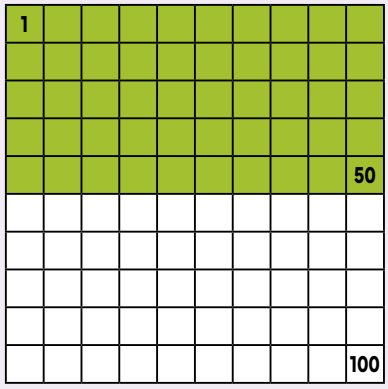
2 Julia bought 9 boxes and used 1/3 of them to organize her materials. James bought 6 boxes and used 2/3 of them. Who used more boxes?

3 A student thinks that 6/9 is more than 2/3, since 6 and 9 are more than 2 and 3. Is this true or false?

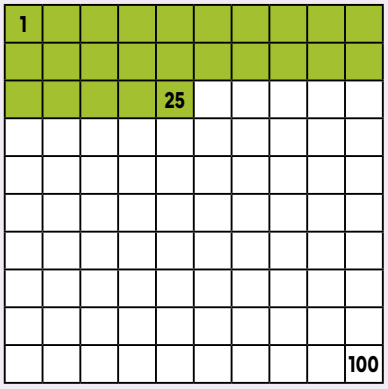
3 5 Listen and read.

Percentage

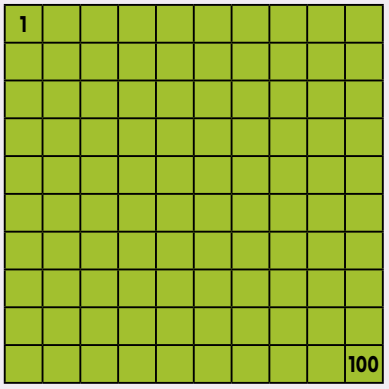
A **percentage** is a number or ratio expressed as a fraction of 100.



50% means 50 parts of 100.



25% means 25 parts of 100.



100% means the whole.

A **percentage** can be expressed as a **fraction** and vice versa.
A half can be written 50% or ½, for example.
If you want to calculate 20% of 80, first you transform the percentage into a fraction and then multiply it by 80.

$$\frac{20}{100} \times \frac{80}{1} = \frac{1600}{100} = 16$$

6 Fill out the table.

fraction	15/100		50/100	
percent		25%		100%

7 Solve the problems.

1 William's allowance is $120 per month. He spends 40% on food. How much does he spend on food every month?

2 The price of a hat has a 25% discount and is now $15. What was the original price?

MATH

8 You are going to do a survey with your classmates.

1 Create a question. Look at the example:

> What is your favorite season?

2 Write three answer options.

1 _____

2 _____

3 _____

3 Ask the question and organize the data.

- How many classmates chose answer 1?

  What is the percentage? _____ And the fraction? _____

- How many classmates chose answer 2?

  What is the percentage? _____ And the fraction? _____

- How many classmates chose answer 3?

  What is the percentage? _____ And the fraction? _____

4 Create a pie chart and label it.