Nova House publications

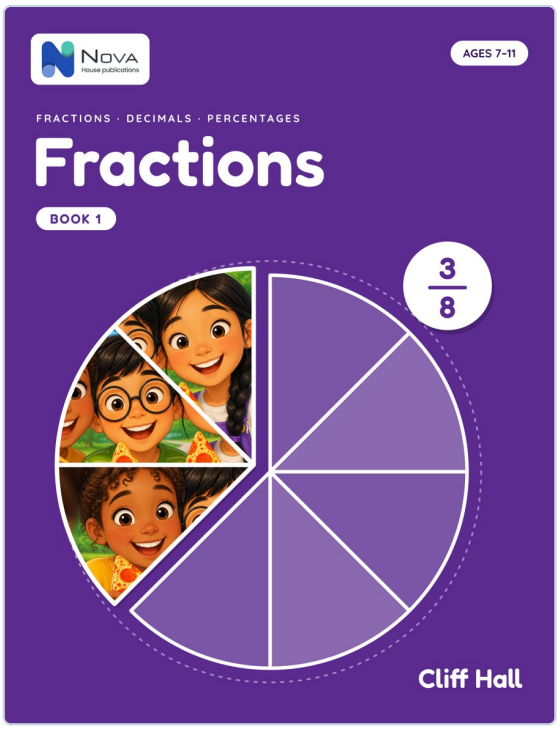
Maths · Book 1 · Free Sample

FREE SAMPLE PAGES

Fractions, Decimals and Percentages

Book 1: Fractions

Unit 1: Parts of a Whole



Inside this sample

p. 2	Unit opener: Parts of a Whole, with the pizza-night story
p. 3	Equal parts, sharing equally and the Key Words
p. 4	How To; Try It With Help; Activity 1: Fill in the Blanks; Activity 2: True or False
p. 5	Activity 3: Make Equal Parts; Activity 4: Multiple Choice; Activity 5: Word Problems
p. 6	Activity 6: Equal or Unequal?
p. 7	Answers for the whole unit, from Teacher's Guide 1

1. **Print**
   Print on A4 at home. Every page fits the sheet, so choose "Fit to page" if your printer asks.

2. **Have a go**
   Read the story and the teaching pages together, then let your child try the activities. Allow 30 to 40 minutes.

3. **Check together**
   Use the answers on page 7 and talk through anything that was tricky.

About the book

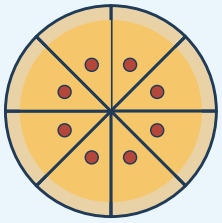
Fractions can be one of the trickiest ideas in primary maths. This friendly workbook builds understanding piece by piece: children start by sharing a pizza fairly and finish multiplying fractions, solving problems and taking their first look at decimals. For ages 7 to 11.

Find out more about the full book at novaeducation.uk

Unit 1

Parts of a Whole

Find out what a whole is, and why the parts must be equal.

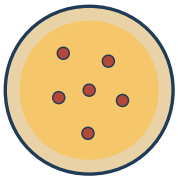




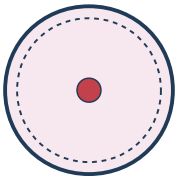
It is pizza night at Maya and Sam's house. Mum is cutting the pizza, and everyone wants a fair share. Before we can talk about fractions, we need to know what a whole is and how to cut it fairly.

What Is a Whole?

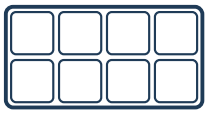
A **whole** is a complete object or amount: a whole pizza, a whole cake or a whole chocolate bar.



one whole pizza



one whole cake

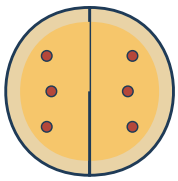


one whole chocolate bar

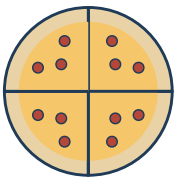
Dividing a Whole into Parts

We can cut a whole into smaller **parts**. The same pizza can be cut into different numbers of parts.

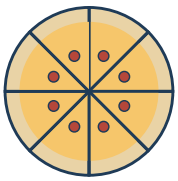
© 2027 Nova House Publications · novaeducation.uk · Sample material · not for resale or redistribution



cut into 2 parts



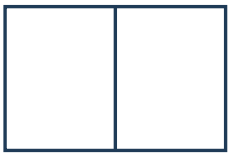
cut into 4 parts



cut into 8 parts

Equal Parts

When we cut something fairly, every part must be **equal**. Equal means exactly the same size.



Equal parts: the same size. Fair!

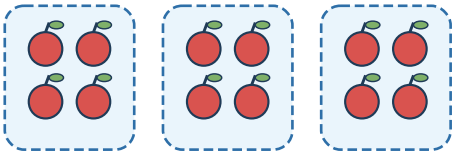


Unequal parts: different sizes. Not fair!

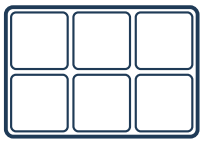
> Equal parts are all the same size. We need equal parts to make fractions.

Sharing Equally

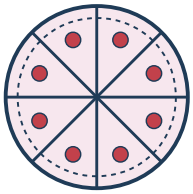
When we share things between people, we make equal groups so that everyone gets the same amount. This is called **fair sharing**.



12 apples shared equally between 3 people: 4 apples each



This chocolate bar has 6 equal parts.



This cake has 8 equal parts.

KEY WORDS

whole	a complete object or amount
part	a piece of the whole
equal	exactly the same size
share	divide something fairly between people

© 2027 Nova House Publications · novaeducation.uk · Sample material · not for resale or redistribution

How To

Sam has 15 sweets. He shares them equally between 3 friends. How many sweets does each friend get?

Step 1 Find the whole. The whole is 15 sweets.

Step 2 Count the equal parts needed. There are 3 friends, so we need 3 equal groups.

Step 3 Share the whole equally: 15 ÷ 3 = 5.

Answer: each friend gets 5 sweets.



Try It With Help Your Turn

Use the steps from the How To box. Ask a grown-up to help if you need it.

1. 10 strawberries are shared equally between 2 children. Each child gets ____ strawberries.
2. 12 stickers are shared equally between 4 friends. Each friend gets ____ stickers.

Activity 1 Fill in the Blanks

Use a word from the word bank to complete each sentence.

whole	equal	parts	share

1. A _____ is a complete object or amount.
2. When we cut something fairly, all the parts must be _____.
3. We can cut a whole into smaller _____.
4. When we _____ things, everyone should get the same amount.

Activity 2 True or False

Circle TRUE or FALSE for each sentence.

1. A whole pizza is bigger than half of the same pizza. TRUE FALSE
2. Equal parts are always the same size. TRUE FALSE
3. When we share fairly, some people get more than others. TRUE FALSE
4. A whole can be cut into different numbers of parts. TRUE FALSE

© 2027 Nova House Publications · novaeducation.uk · Sample material · not for resale or redistribution

5 Unequal parts are good for fair sharing. TRUE FALSE

Activity 3 Make Equal Parts

Draw lines to cut each rectangle into the number of equal parts shown.



2 equal parts



4 equal parts



3 equal parts

Activity 4 Multiple Choice

Circle the letter of the correct answer.

1 What does **equal** mean?

A different sizes B the same size C very big D very small

2 Which of these is fair sharing?

A one child gets 10 sweets and the other gets 2 B both children get 6 sweets

C one child gets all the sweets D nobody gets any sweets

3 A cake is cut into 8 equal slices. How many parts does the cake have?

A 1 B 4 C 8 D 16

Activity 5 Word Problems

Read each problem carefully and write your answer in the box.

1 Mum bakes 20 biscuits and shares them equally between 4 children. How many biscuits does each child get? ____

2 A pizza is cut into 6 equal slices. Tom eats 2 slices. How many slices are left? ____

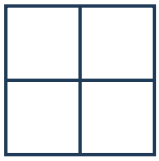
3 24 apples are put into 3 equal groups. How many apples are in each group? ____

4 A chocolate bar has 12 squares. It is broken into 2 equal parts. How many squares are in each part? ____

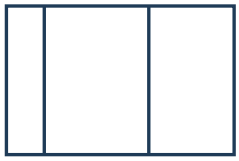
© 2027 Nova House Publications · novaeducation.uk · Sample material · not for resale or redistribution

Activity 6 Equal or Unequal?

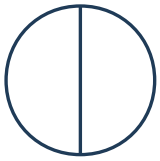
Look at each shape. Are all the parts the same size? Write EQUAL or UNEQUAL in the box.



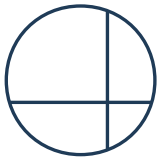
A



B



C



D

Next: Unit 2 · What Is a Fraction?

★ ★ ★

© 2027 Nova House Publications · novaeducation.uk · Sample material · not for resale or redistribution

Answers Unit 1: Parts of a Whole

For the adult checking this work. These answers come from Teacher's Guide 1: Fractions, which shows every pupil page with its answers beside it, plus short teaching notes for every unit.

Try It With Help

1. 5
2. 3

Activity 1

1. whole
2. equal
3. parts
4. share

Activity 2

1. TRUE
2. TRUE
3. FALSE
4. TRUE
5. FALSE

Activity 3

Rectangles cut into 2, 4 and 3 equal parts, e.g. 1 line down the middle; 3 equally spaced lines (or a cross); 2 equally spaced lines

Activity 4

1. B
2. B
3. C

Activity 5

1. 5 biscuits
2. 4 slices
3. 8 apples
4. 6 squares

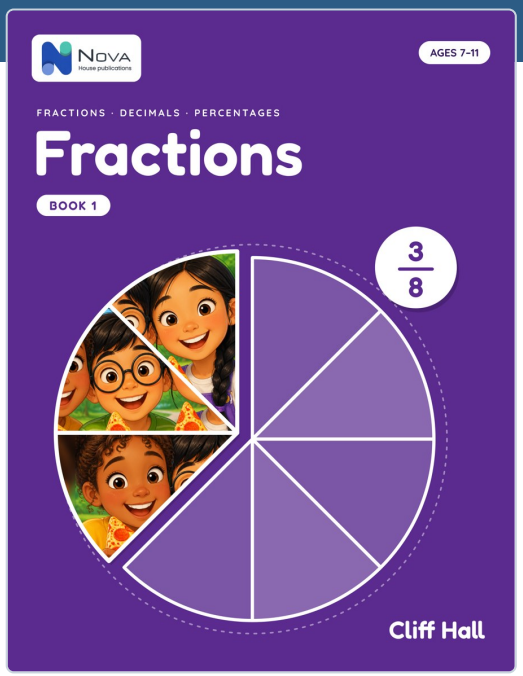
Activity 6

A. EQUAL; B. UNEQUAL; C. EQUAL; D. UNEQUAL

© 2027 Nova House Publications · novaeducation.uk · Sample material · not for resale or redistribution

ENJOYED THESE PAGES?

Get the full book



Fractions, Decimals and Percentages

Book 1: Fractions

- 17 clear units, from sharing a pizza fairly to multiplying fractions and first steps with decimals
- How To boxes with worked examples that show every step
- Try It With Help, then activities that grow harder, with CHALLENGE questions for Years 5 and 6
- Five 30-mark Summary Exercises and a 50-mark Final Test

Find it at novaeducation.uk →

or visit novaeducation.uk

Also in the series, and from Nova

Fractions, Decimals and Percentages Book 2: Decimals
See novaeducation.uk

Fractions, Decimals and Percentages Book 3: Percentages
See novaeducation.uk

Teacher's Guide 1: Fractions
Teaching notes and every answer

Vocabulary Builder (six books)
See novaeducation.uk

More free sample pages for every Fractions, Decimals and Percentages book, the Vocabulary Builder series, and 7+, 8+, 11+ and ISEB English, Maths, Verbal Reasoning and Non-Verbal Reasoning, are on our website: novaeducation.uk

Free sample · © 2027 Nova House Publications · novaeducation.uk · Sample material · not for resale or redistribution