

Cambridge University Press
978-1-107-44802-5 – GCSE Mathematics for Edexcel Foundation Student Book
Karen Morrison Julia Smith Pauline McLean Rachael Horsman Nick Asker
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MATHEMATICS

GCSE for Edexcel

Student Book

Karen Morrison, Julia Smith, Pauline McLean, Rachael Horsman and Nick Asker

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Note

The colour of each chapter corresponds to the area of maths that it covers:

- Number
 - Algebra
 - Ratio, proportion and rates of change
- Geometry and measures
 - Probability
 - Statistics



Introduction

This book has been written by experienced teachers to help build your understanding and enjoyment of the maths you will meet at GCSE.

Each chapter opens with a list of skills that are covered in the chapter. The **real-life applications** section describes an example of how the maths is used in real life.

All chapters build on knowledge that you will have learned in previous years. You might need to revise some topics before starting a chapter. To check your knowledge, answer the questions in the **Before you start...** table. You can check your answers using the free answer booklet available at www.cambridge.org/ukschools/gcsemaths-studentbookanswers. If you answer any questions incorrectly, you might need to revise the topic from your work in earlier years.

The chapters are divided into sections, each covering a single topic. Some chapters may cover topics that you already know and understand. You can use the **Launchpad** to identify the best section for you to start with. Answer the questions in each step. If you find a question difficult to answer correctly, the step suggests the section that you should look at.

Throughout the book, there are features to help you build knowledge and improve your skills:



This means you might need a calculator to work through a question.



This means you should work through a question without using a calculator.



This shows the question is from a past exam paper.



Tip

Tip boxes provide helpful hints.



Calculator tip

Calculator tips help you to use your calculator.



Learn this formula

Learn this formula boxes contain formulae that you need to know.



Key vocabulary

Important maths terms are written in **green**. You can find what they mean in **Key vocabulary** boxes and also in the **Glossary** at the back of the book.



Did you know?

Did you know? boxes contain interesting maths facts.

WORK IT OUT

Work it out boxes contain a question with several worked solutions. Some of the solutions contain common mistakes. Try to spot the correct solution and check the free answer booklet available at www.cambridge.org/ukschools/gcsemaths-studentbookanswers to see if you're right.

WORKED EXAMPLE

Worked examples guide you through model answers to help you understand methods of answering questions.

Some chapters contain a **Problem-solving framework**, which sets a problem and then shows how you can go about answering it.



Checklist of learning and understanding

At the end of a chapter, use the **Checklist of learning and understanding** to check whether you have covered everything you need to know.



Chapter review

You can check whether you have understood the topics using the **Chapter review**, which contains questions from the whole chapter.

A booklet containing answers to all exercises is free to download at www.cambridge.org/ukschools/gcsemaths-studentbookanswers.

You can find more resources, including interactive widgets, games and quizzes on **GCSE Mathematics Online**.