

# Introduction

This book will help you to prepare for the maths part of your 11+ exam. It will help you improve your maths knowledge and practice a range of maths skills, focusing on key areas, such as fractions and the properties of shapes. You are likely to have covered most of the topics already in school. However, there are some topics, such as algebra, which you may not have learnt about yet.

The topics are grouped into six sections:

- number and place value
- calculations, algebra and number sequences
- fractions, decimals and percentages
- measurement
- geometry
- statistics.

You might not be tested on all these topics in your 11+ exam, but it is important to revise them in case they do come up.

If you are sitting an 11+ exam set by CEM, you might find that a part of your exam is described as numerical reasoning. Numerical reasoning questions can be straightforward mathematical calculations or word problems that you will need to use logic to solve, both of which you will be familiar with from your maths lessons. The examples and explanations in this book provide complete practice in the skills you need for a numerical reasoning exam.

## How to use this book

Before you start using this book, write your name in the box on the first page. Then decide how to begin. If you want a complete course in maths, work right through the book. If you want to find out about a particular topic, use the Contents page or the Index to find the pages you need. Whichever way you choose to use the book, don't try to cover too much at once – it is better to work in short bursts.

When you are ready to begin, find some rough paper. You may find this useful for your workings out. As you make a start, look out for the symbols below, which mark different parts of the text. Find out about words in **grey** by turning to the Glossary on pages 182 to 184.



### Activities

These are the questions that you should complete after you have revised each topic. There are spaces provided for you to write your answers, but you will need a separate piece of paper to do any calculations. After you have worked through all the questions, turn to pages 158 to 181 to check your answers. If you got any of the answers wrong, read the topic again, and then have another go at the questions. When you are sure that you understand a topic, tick the box beside it on the Contents page.



### Tip

This text gives you helpful tips on how to tackle a particular question type.



### Important

This text gives you useful information, rules and techniques you should remember.

At the end of the book, there is a timed Practice test. You should attempt this once you are sure that you understand all the question types.