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# Numeracy Tests

FOR  
**DUMMIES**®

## Learn to:

- Get to grips with the different tests and how they're structured
- Identify your strengths and weaknesses
- Review essential maths concepts
- Practice your skills with more than 400 questions

**Colin Beveridge**

*Maths Tutor*



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# Numeracy Tests Numeracy Tests For Dummies®

Visit [www.dummies.com/numeracytestsuk](http://www.dummies.com/numeracytestsuk) to view this book's cheat sheet.

## Table of Contents

### [Introduction](#)

[About This Book](#)

[Conventions Used in This Book](#)

[Foolish Assumptions](#)

[How this Book is Organised](#)

[Part I: Preparing for Your Numeracy Test](#)

[Part II: A Whistle-Stop Tour of the Maths You Need](#)

[Part III: Practice Tests](#)

[Part IV: The Part of Tens](#)

[Icons Used in This Book](#)

[Where to Go from Here](#)

### [Part I: Preparing for Your Numeracy Test](#)

[Chapter 1: Getting Started](#)

[Covering the Basics](#)

[Defining numeracy](#)  
[What numeracy tests typically cover](#)

[Opening Up Your Options with Numeracy Tests](#)

[Improving your chances](#)

[Examining Common Numeracy Tests](#)

[Acing ALAN](#)

[Training to be a teacher](#)

[Fighting your way into the armed forces](#)

[Helping out with the emergency services](#)

[UK Clinical Aptitude Test \(UKCAT\)](#)

[And the rest . . .](#)

[Reviewing Common Test Types](#)

[Mental arithmetic](#)

[Real-world maths](#)

[Handling data](#)

[Taking the Test](#)

[Knowing what to expect](#)

[Calming yourself down](#)

[Chapter 2: Putting a Practice Plan Together](#)

[Working Out What to Learn](#)

[Finding out what's in your test](#)

Working out what you already know  
Filling in the gaps

Finding Time to Study

Making a habit of it  
Finding a space for yourself

Catching Up if You Fall Behind

Being realistic  
Meeting yourself where you are  
Doing what you can

Revising What You Know

Boosting your confidence with the easy bits  
Stretching a little further each time  
Working on practice tests

Picking up the Pace

Tackling timing  
Flashing cards  
Speeding up a little at a time  
Keeping on target

Chapter 3: Tackling Test Day

Preparing for Exam Day

Knowing where the exam is

Bringing what you need  
Getting in the right frame of mind

## Connecting with a Computer Test

What to expect  
Magic numbers: Using the on-screen calculator

## Previewing a Paper-and-Pencil Test

Answering the exam questions  
Making sense of multiple choice

## Approaching Tricky Questions

Explaining the problem to the bear  
Considering what you'd do with the information  
Keeping it tidy

## Managing Your Time

Starting off gently  
Moving swiftly along  
Guessing when you need to  
Checking your work

## Part II: A Whistle-Stop Tour of the Maths You Need

### Chapter 4: Refreshing Your Basic Maths

#### Handling Whole Numbers

Adding and subtracting  
Multiplying and dividing

Roughly Speaking: Finding Approximate Answers

Rounding off with decimal places  
Working roughly

Dealing with Fractions

Equivalent fractions and cancelling down  
Adding and taking away fractions  
Fractions of a number  
Multiplying and dividing fractions  
Converting between decimals and fractions

Dealing with Decimals

Adding and taking away decimals  
Multiplying and dividing decimal numbers

Chapter 5: Blitzing Beyond the Basics

Perfecting Percentages and Parts of the Whole

Doing basic percentages with the Table of Joy  
Percentage increase and decrease

Rattling Off Ratios

[Normal ratio sums](#)

[Total ratio sums](#)

[Three-part ratios](#)

[Simplifying ratios](#)

[The Number Knowledge You Need](#)

[Bracing yourself for BIDMAS](#)

[Finding the magic formula](#)

[Number sequences](#)

[Sorting Out Statistics](#)

[Mean, median and mode](#)

[Chapter 6: Mastering Mental Arithmetic](#)

[Breaking Down the Big Four](#)

[Adding and subtracting](#)

[Multiplying and dividing](#)

[Taking stock of tens](#)

[Finding factors](#)

[Putting Percentages in their Place](#)

[Converting percentages into other forms](#)

[Finding a percentage](#)

[Percentage increase and decrease](#)

[Making Sense of Money and Time](#)

[Counting your cash](#)



[Converting your currency](#)  
[Time for the 24-hour clock](#)  
[How long things last](#)  
[Finding start and end times](#)

## [Chapter 7: Reaching Into Real-World Maths](#)

### [Measuring Up with the Metric System](#)

[Weighing things up](#)  
[The long and short of it](#)  
[Converting between units](#)

### [Showing Shapes Who's Boss](#)

[Finding your angle](#)  
[The shapes you need to know](#)  
[All about area](#)  
[A walk around the perimeter](#)  
[How much things hold](#)  
[Working with speed, distance and time](#)

## [Chapter 8: Interpreting Data](#)

### [Getting on Top of Graphs](#)

[Which graph to use](#)  
[Battling with bar charts](#)  
[Making pie charts a piece of cake](#)  
[Living with line graphs](#)  
[Scatter graphs](#)  
[Beating box plots](#)  
[Conquering cumulative frequency](#)

## Drilling into Data Tables

Tackling two-way tables

Tallying up

Dealing with data tables

Taming table sums

## Moving Swiftly Along: Working with Time-Based Questions

Reading timetables

## Part III: Practice Tests

### Chapter 9: Mental Arithmetic Tests

Test A: Armed Forces and Emergency Services

Test A Questions

Worked Answers for Test A

Test B: ALAN

Test B Questions

Worked Answers for Test B

Test C: Qualified Teacher Status

Test C Questions

Worked Answers for Test C

Test D: General Mental Arithmetic

Test D Questions

[Worked Answers for Test D](#)  
[Answers at a Glance](#)

[Test A](#)

[Test B](#)

[Test C](#)

[Test D](#)

[Chapter 10: Testing Real-World Maths](#)

[Test A: British Army Technical Skills Test](#)

[Test A Questions](#)

[Worked Answers for Test A](#)

[Test B: Qualified Teacher Status Numeracy Test](#)

[Test B Questions](#)

[Worked Answers for Test B](#)

[Test C: ALAN Numeracy Exam](#)

[Test C Questions](#)

[Worked Answers for Test C](#)

[Test D: General](#)

[Test D Questions](#)

[Worked Answers for Test D](#)

[Answers at a Glance](#)

[Test A](#)

[Test B](#)

[Test C](#)

[Test D](#)

## [Chapter 11: Data Handling Tests](#)

[Test A: Armed Forces Entrance Exam](#)

[Test A Questions](#)

[Worked Answers for Test A](#)

[Test B: Emergency Services Data Handling](#)

[Test B Questions](#)

[Worked Answers for Test B](#)

[Test C: ALAN Level 2 Data Handling](#)

[Questions for Test C](#)

[Worked Answers for Test C](#)

[Test D: General Data Handling](#)

[Test D Questions](#)

[Worked Answers for Test D](#)

[Answers at a Glance](#)

[Test A](#)

[Test B](#)

[Test C](#)

[Test D](#)

## [Chapter 12: Advanced Data Handling Tests](#)

[Test A: Qualified Teacher Status Exam](#)

[Test A Questions](#)

[Worked Answers for Test A](#)

[Test B: UKCAT](#)

[Test B Questions](#)

[Worked Answers for Test B](#)

[Answers at a Glance](#)

[Test A](#)

[Test B](#)

[Chapter 13: Mixed Tests](#)

[Test A: ALAN Level 2 Qualification](#)

[Test A Questions](#)

[Worked Answers for Test A](#)

[Test B: The Army Technical Test](#)

[Test B Questions](#)

[Worked Answers for Test B](#)

[Test C: General Numeracy](#)

[Test C Questions](#)

[Worked answers for Test C](#)

[Answers at a Glance](#)

Test A

Test B

Test C

## Part IV: The Part of Tens

### Chapter 14: Ten Ways to Find a Sense of Calm While Studying

Talk Yourself Up

Sit Up Straight

Breathe Like a Singer

Put Out the Welcome Mat

Make Mistakes Merrily

Work Within Limits

Make Studying a Habit

Stay Well-Fuelled

Jump Around

Warm Up Gently

### Chapter 15: Ten Ways To Motivate Yourself To Study

Remember Why You're Studying

Make Your Workspace Wonderful

Cross Off the Days

Treat Yourself

Find a Study Buddy

Get Your Friends and Family Onside

Set a Timer

Remember it's not Forever

Give Yourself a Good Name

## Think of the Outcome

### Chapter 16: Ten Tips For Tackling Tough Test Questions

Read the Question

Eliminate Wrong Answers

Think of Similar Problems

Try the Answers

Explain the Question to Yourself

Use a Smart Estimate

Come Back to it Later

Break it Down into Smaller Parts

Guess Wildly

### Chapter 17: Ten Ways To Make Your Exam Easier

Knowing Your Enemy

Practising the Hard Parts

Practising the Easy Parts

Keeping Your Energy Up

Accentuating the Positive

Using the Last Few Minutes

Having a Ritual

Read the Paper First

Managing Your Time

Checking Your Work and Putting it Right

Cheat Sheet

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**by Colin Beveridge**



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# About the Author

**Colin Beveridge** is a maths confidence coach for Flying Colours Maths, author of *Basic Maths For Dummies* and co-author of the *Little Algebra Book*.

He holds a PhD in Mathematics from the University of St Andrews and worked for several years on NASA's Living With A Star project at Montana State University, where he came up with an equation which is named after him. It's used to help save the world from being destroyed by solar flares. So far so good.

He became tired of the glamour of academia and returned to the UK to concentrate on helping students come to terms with maths and show that not all mathematicians are boring nerds; some are exciting, relatively well-adjusted nerds.

Colin lives in Poole, Dorset with an espresso pot, several guitars and nothing to prove. Feel free to visit his website at [www.flyingcoloursmaths.co.uk](http://www.flyingcoloursmaths.co.uk) or follow him on Twitter at [www.twitter.com/icecolbeveridge](http://www.twitter.com/icecolbeveridge).

# **Dedication**

For my students and teachers, past and present.

# Author's Acknowledgements

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# Introduction

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Hi, I'm Colin, and I want maths to be easy for you.

I don't want to turn you into a geek like me - I couldn't if I tried. I don't want to cram maths down your throat, either - that would be pretty rude.

All I want to do is help you learn enough maths to do well in your numeracy test and to feel confident tackling the kinds of maths problems that will come up in your future career and/or studies.

As you work through this book, answering the questions will get quicker and easier with time and practice, and you'll be in great shape for your numeracy test. Once you have that, you may never have to do another maths test again! Here's hoping!

I'd love to hear how you get on. The best way to catch me is on Twitter (I'm <http://twitter.com/icecolbeveridge>) - I'll read your news and get back to you if I can!

## About This Book

This book is for you if you have to take a numeracy test in order to follow your chosen career path or to qualify for further study.

I take you through the maths you need to know to do well in these tests and try to help you understand how it all fits together.

Maths might sometimes look like a chaotic system of funny symbols and bizarre rules, but it's actually a very neat and concise way to communicate information.

I break down maths into smaller, simpler parts that I hope you'll understand.

Among other things, I cover the following in this book:

- ✔ **Preparing for your test** - both for studying and for keeping yourself calm while you sit it.
- ✔ **Working with whole numbers** - the 'big four' of adding, subtracting, multiplying and dividing are pretty much the key to doing well in numeracy tests.
- ✔ **Handling maths on paper** - the dreaded 'mental arithmetic' questions don't have to be dreadful!
- ✔ **Dealing with decimals and fractions** - these are easier than they seem, honestly! You already use decimals every time you do anything with money, and you only need to know a few fraction rules.
- ✔ **Making sense of measurements** - you may have a head start here! If you've ever used a scale, a clock or a ruler, you have some idea of how measurements work.
- ✔ **Getting on top of graphs and tables** - reading data in a neat table or graph is normally easier than from a raw, disorganised list. Once you figure out the rules, you're off to the races!

That sounds like fun, doesn't it?

# Conventions Used in This Book

I keep the conventions to a minimum in this book. Here are the ones I use:

- ✓ I use *italics* for emphasis or to highlight new words or phrases.
- ✓ **Boldfaced text** indicates key words in bulleted lists or the key steps of action lists.
- ✓ Monotype font is used for Internet and email addresses.

## Foolish Assumptions

Making assumptions is always a risky business, but knowing where I'm coming from may put you at ease. So, in writing this book, I assume that:

- ✓ You know how to count and are familiar with the basic maths symbols.
- ✓ You understand the idea of money and changing a banknote for an equivalent value of coins or smaller notes.
- ✓ You know what the basic shapes look like.
- ✓ You're prepared to think fairly hard about maths and want either to pass a numeracy qualification or to simply brush up on your maths skills.

# How this Book is Organised

Like all *For Dummies* books, *Numeracy Tests For Dummies* is a reference book, and each topic is allotted its own part in the book. Within each part are individual chapters relating specifically to the topic in question.

## Part I: Preparing for Your Numeracy Test

Part I is all about setting yourself up so that when you sit your exam you'll find it relatively easy to stay calm and show what you can do.

You'll learn about the various types of numeracy tests, what's in them and why you need to sit one, as well as how to prepare properly and what you need to do on test day.

## Part II: A Whistle-Stop Tour of the Maths You Need

This part is a quick but thorough guide to all the maths you need to know for your numeracy test. I cover:

- ✓ **Working with whole numbers** - the building blocks of maths and really, the key to doing well in any numeracy test.
- ✓ **Dealing with decimals, fractions and percentages** - a traditional stumbling block, but I

show you how to deal with them quickly and confidently.

- ✓ **Making sense of measures** – nothing is particularly difficult about working with measurements (such as kilograms, miles and litres) compared to working with real numbers: all you need to remember is how to convert between units and you're most of the way there.
- ✓ **Getting to grips with graphs and statistics** – once you nail the vocabulary and remember how to work out the different types of average, you'll know pretty much all you need to.
- ✓ **Handling sums in your head** – many numeracy tests have a non-calculator component, in which you have to work out the sums on paper or a whiteboard. I take you through some of the tricks of the trade for doing well in this type of test.

## Part III: Practice Tests

Part III is all about checking what you know! In this part, I give you a whole range of tests on the various levels and topics so you can figure out what you can do already, and what you need to spend a bit more time studying.

The tests are followed by worked answers, where I explain how I reached the solution I came up with.

## Part IV: The Part of Tens

All *For Dummies* books finish with 'The Part of Tens', a bunch of lists full of practical tips to help you manage the

material in the rest of the book.

I run you through ways of calming down and some ideas for remembering your number facts. I show you how to deal with some of the tougher questions examiners may set, and I offer some exam-technique tips so you can get in there and ace it.

## Icons Used in This Book

Here are the icons I use to draw your attention to particularly noteworthy paragraphs:



Theories are fine, but anything marked with a Tip icon in this book tells you something practical to help you get to the right answer. These are the tricks of the mathematical trade.



Paragraphs marked with the Remember icon contain the key takeaways from the book and the essence of each subject.



The Warning icon highlights errors and mistakes that can cost you marks or your sanity, or both.