EDEXCELMATHS

A LEVEL MATHS

Course Guide

NEW for 2018: Bridging Editions

OXFORD
In 2017 the new linear A Level was taught for the first time, and your students sat the new GCSE 9-1 exams for the first time.

Oxford has taken the data and experience from these changes to create exciting NEW Bridging Editions: Student Books that offer complete coverage of the new Edexcel A Level specification, including dedicated bridging units at the start of Year 1 chapters to provide the perfect springboard from the new GCSE to the new A Level.

- New Bridging Editions help overcome the challenge of preparing students for A Level
- Each Bridging Edition covers Pure Maths, Mechanics, and Statistics, providing the flexibility you need for co-teaching AS and A Level
- Written by a team of experienced teachers led by former Head Teacher, David Baker
- New section in Chapter 16 covers solving problems with the definite integral using parametric equations

Find out more
- For our extensive problem-solving support: see pages 5–7
- For our support for all kinds of assessment on Kerboodle: see pages 11–12
- For our bespoke resources supporting mechanics and statistics (now compulsory in the new specification) see pages 2 and 9–10
- To learn more about direct links to MyMaths: see pages 11–12
- To learn how you can reveal answers to your class on Kerboodle, one step at a time, see pages 8 and 11–12

Order your inspection copies free for 30 days
Fill out and return the tear-off strip at the back of this guide today to order your inspection copies.
Solve the equation $\log_4 (x + 2) = 1.46$ to 3 significant figures.

You can solve an equation involving an exponential such as $3^x = 2$ to find an angle, $\theta$. Therefore, $\log_3 (2)$ is equivalent to $\log_3 (x + 2)$. It is important that angles and sides of the same letter can be found.

To do so, the sine rule gives us information about the opposite side and angle pair.

### Section 3.2: Trigonometry

### Example 3

Solve each of these equations, giving your answers to 3 significant figures where appropriate.

### Example 4

When finding an angle, remember that the equation $\sin A = \frac{a}{c}$ has two solutions in the range $0^\circ \leq A \leq 180^\circ$. So you need to find solutions that fit the sine function in that range. You can then choose solutions that fit the requirement.$^\circ$ by using the sine graph.

### Example 5

Triangle ABC is such that $\angle A = 60^\circ$, $BC = 5$ cm and $AC = 4$ cm. Calculate the size of angle $\angle B$.

### Example 6

Find the area of each of the triangles in question 5.

### Example 7

Bridging sections at the start of chapters offer students the chance to recap skills from GCSE and start to use the skills they need at A Level.
The Edexcel A Level Maths Student Books cover everything you need to fulfil the new requirements of Edexcel’s linear specification, including teaching 100% prescribed content. These books cover all the Pure Maths, Mechanics, and Statistics in the specification, providing the flexibility you need for co-teaching AS and A level.

Students are challenged with practice questions at the highest level of demand.

Links to MyMaths provide a quick route to extra support and practice.

Short answers are in the back of the Student Books, with a full mark scheme.

Also available: write-on practice books!

Each book provides 3 complete sets of mock papers to provide realistic practice of the actual exam.

Dedicated sections on problem-solving start with a strategy box to build students’ technique in answering the new A02 & A03 questions.
students which

The graph of

The correlation between x and y is 0.816 for

The mean value of y

The variance of y

Anscombe wanted to make?

What do you observe? What point do you think

The mean hours of daily total sunshine over this period was 10.95

Suggest a practical difficulty that may be encountered when contacting households.

Your knowledge of this topic is still developing.

Sketch the graph of

Find the minimum point.

Calculate the median and explain whether the mean or the median would be the best

The mean of y

Describe the transformation that maps

The transformation that maps

The coordinates of the point where this

What is Anscombe's constant?

Find the value of b when the value of y is 3.0.

What do you notice?

Student Books

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13

9.13

29

20

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Equation is

Student Book questions. We have provided three options for you:

By extrapolation.

The variance of y

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11.1 Formulating a test

**Statistical mechanics and statistics** have become a mandatory part of the AS and A Level curriculum since summer 2015.

**Student Workbooks** provide supplementary support and practice with focused revision sections and extensive exam practice. The Statistics Workbook also includes guidance on how to use Edexcel's Large data set, which your students will need for their exams.

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**Teacher Books** are the core course companion for non-specialist mechanics and statistics teachers, or teachers looking for additional practice for their class. Designed to work alongside the AS and A Level Student Books, they provide valuable introductions and insights into all the mechanics and statistics content in the new specification.

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**Focussed revision sections** provide quick recaps and highlight common exam errors.

**Quick reference** to all relevant mechanics or statistics resources.

**Extension questions, model answers and a special 'investigation'** are provided for the more confident students.
Online resources

Edexcel A Level Maths Online Resources are available via Kerboodle and provide you with complete support for digital practice and assessment. One annual subscription allows you and your students unlimited school and home access and includes digital editions of the A Level Maths and A Level Further Maths Student Books.

**Auto-marked Test**

On-screen auto-marked tests give your students meaningful feedback and hints.

**Mock exam paper**

In addition to the Exam Practice Books, there are three full sets of practice papers for both AS and A Level available to download from Kerboodle.

**InvisiPen worked example video**

Unique ‘InvisiPen’ worked example videos that talk through exam-style questions with model answers.

**Step-by-step solutions**

Step-by-step solutions to all Student Book questions. Unique ‘stepped-reveal’ functionality allows the user to reveal one line of working at a time, making it perfect for working through problems at home or on the whiteboard.

**Stepped-reveal solutions**

MyMaths Assessment Manager

Kerboodle resources include digital editions of the Student Books with hotspots linking directly to ‘Invisipen’ worked example videos and MyMaths resources.

Edexcel A Level Maths digital editions link directly to corresponding MyMaths Lessons and Online Homeworks for further practice and support for your students. MyMaths.co.uk has been updated with new lessons to support the new A Level curriculum.

DON’T MISS:
Oxford’s unique and hugely popular ‘stepped reveal’ tool for answers.

All Student Books have been approved by Edexcel. All other resources are not part of the Edexcel approval process.
The shaded region is rotated 2π radians around the x-axis.

Calculate the volume of revolution when the shaded region is rotated 180° around the y-axis. Give your answer in terms of π.

The shaded region is rotated 360° around the y-axis. Calculate the volume of the solid formed.

Find the volume of the solid formed when the region bounded by the curve with equation y = x^2, the line y = 1, the line y = 2, and the coordinate axes.

The region A is bounded by the curve with equation \( y = x^2 \), the line \( y = 1 \), the line \( y = 2 \), and the coordinate axes.

Calculate the volume of revolution when the shaded region is rotated 2π radians around the y-axis. Give your answer in terms of π.

The shaded region is bounded by the curve \( y = x^2 \), the line \( y = 1 \), the line \( y = 2 \), and the coordinate axes. Calculate the volume of revolution when the shaded region is rotated 2π radians around the y-axis. Give your answer in terms of π.

The region bounded by the curve \( y = x^2 \), the line \( y = 1 \), the line \( y = 2 \), and the coordinate axes is rotated 2π radians around the y-axis. Calculate the volume of revolution. Give your answer to 3 significant figures.
How to get in touch:
Email: secondary.enquiries@oup.com  |  Tel: 01536 452657
@OxfordEdMaths  |  https://educationblog.oup.com
Web: www.oxfordsecondary.co.uk/maths