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AS and A level

Mathematics and Further Mathematics

2017

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Launch event

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Agenda

- Criteria
- Introducing the specifications
  - Mathematics
  - Further Mathematics
- Assessment
- Support

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Supporting great maths teaching

- Simple, intuitive specifications that enable co-teaching and parallel delivery
- Clear, familiar, accessible exam papers with specified content
- A wide range of free exam practice to fully prepare students and help you track progress
- Complete support and free materials to help you understand and deliver the specifications
- The published resources you know and trust, fully updated for 2017

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AS and A level

Mathematics and Further Mathematics

2017

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The A level reforms

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The A level reforms

- All new AS and A levels will be assessed at the same standard as they are currently
- All new AS and A levels will be fully linear
- AS levels will be stand-alone qualifications
- The content of the AS level can be a sub-set of the A level content to allow co-teachability, but marks achieved in the AS will not count towards the A level

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The A level reforms - HE

ALCAB set up – November 2013

- ALCAB – the A level content advisory board
- "Will look at content only – will not look at the structure and assessment of qualifications"
- Representing Russell group interests and opinions
- Subject panels included a range of stakeholders

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The A level reforms - DfE

July 2014

- ALCAB published final report (including advice to delay first teaching to 2017)
- DfE consultation on content (based on ALCAB's advice)

December 2014

- DfE published finalised content documents

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The A level reforms - content

A level Mathematics

- 100% core content
- Pure mathematics (broadly same as C1 to C4)
- Mechanics (mainly from M1 and M2)
- Statistics (mainly from S1 and S2)
- AS content shown in bold font

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The A level reforms - content

A level Further Mathematics

- 50% core (all pure mathematics)
- 50% optional and can include
  - pure mathematics
  - mechanics
  - statistics
  - decision mathematics
  - any other

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The A level reforms - content

AS level Further Mathematics

- 20% core (all pure mathematics)
- 10% compulsory (selected from the A level core)
- 70% optional (same options as A level)

We have made an additional 20% of the content compulsory (taken from A level core)

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The A level reforms - content

- Requirement for the assessment of problem solving, communication, proof, modelling, application of techniques
- Requirement for a pre-release large data set (mathematics only)
- Requirement that candidates have a calculator with
  - the ability to compute summary statistics and access probabilities from standard statistical distributions
  - an iterative function
  - the ability to perform calculations with matrices up to at least order 3 × 3 (further mathematics only)

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The A level reforms - Ofqual

Ofqual published conditions and guidance in April 2016

No rules on

- total assessment time
- length of papers
- number of papers
- non-calculator assessment

Ofqual have set one rule

- no non-exam assessment (NEA)

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The A level reforms – assessment objectives

Objective	Mathematics		Further mathematics	
	A level	AS	A level	AS
AO1 – Use and apply standard techniques	50% (±2%)	60% (±2%)	50% (±2%)	60% (±2%)
AO2 – Reason, interpret and communicate mathematically	25% (±2%)	20% (±2%)	At least 15%	At least 10%
AO3 – Solve problems within mathematics and in other contexts	25% (±2%)	20% (±2%)	At least 15%	At least 10%

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The A level reforms – assessment objectives

AO1: Use and apply standard techniques. Learners should be able to: ▪ select and correctly carry out routine procedures ▪ accurately recall facts, terminology and definitions	*50% (A Level)* *60% (AS)*
Strands	**Elements**
1. select and correctly carry out routine procedures	1a – select routine procedures
	1b – correctly carry out routine procedures
2. accurately recall facts, terminology and definitions	This strand is a single element

The A level reforms – assessment objectives

AO2: Reason, interpret and communicate mathematically *25% (A Level) 20% (AS)*

Learners should be able to:

- **construct rigorous mathematical arguments (including proofs)**
- **make deductions and inferences**
- **assess the validity of mathematical arguments**
- **explain their reasoning**
- **use mathematical language and notation correctly**

Strands	Elements
1. construct rigorous mathematical arguments (including proofs)	This strand is a single element
2. make deductions and inferences	2a – make deductions
	2b – make inferences
3. assess the validity of mathematical arguments	This strand is a single element
4. explain their reasoning	This strand is a single element
5. use mathematical language and notation correctly	This strand is a single element

The A level reforms – assessment objectives

AO3: Solve problems within mathematics and in other contexts *25% (A Level) 20% (AS)*

Learners should be able to:

- translate problems in mathematical and non-mathematical contexts into mathematical processes
- interpret solutions to problems in their original context, and, where appropriate, evaluate their accuracy and limitations
- translate situations in context into mathematical models
- use mathematical models
- evaluate the outcomes of modelling in context, recognise the limitations of models and, where appropriate, explain how to refine them

Strands	Elements
1. translate problems in mathematical and non-mathematical contexts into mathematical processes	1a – translate problems in mathematical contexts into mathematical processes
	1b – translate problems in non-mathematical contexts into mathematical processes
2. interpret solutions to problems in their original context, and, where appropriate evaluate their accuracy and limitations	2a – interpret solutions to problems in their original context
	2b – where appropriate, evaluation the accuracy and limitations of solutions to problems
3. translate situations in context into mathematical models	This strand is a single element
4. use mathematical models	This strand is a single element
5. evaluate the outcomes of modelling in context, recognise the limitations of models and, where appropriate, explain how to refine them	5a – evaluate the outcomes of modelling in context
	5b – recognise the limitations of models
	5c – where appropriate, explain how to refine models

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AS and A level Timeline

	2016	2017	2018	2019
Current specification	Summer series as normal	Summer series as normal	Final AS resit and A2 exams	Final resit of A levels
New 2017 specification		First teaching of 1 year AS and 2 year A level	First AS level assessment (and A level Mathematics)	First A level Further Mathematics assessment

- All to be confirmed by Ofqual

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AS and A level

Mathematics and Further Mathematics

2017

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Our specifications

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Our specifications

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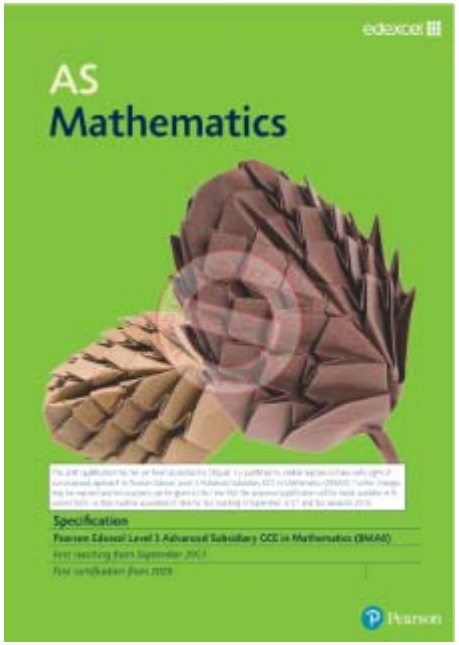

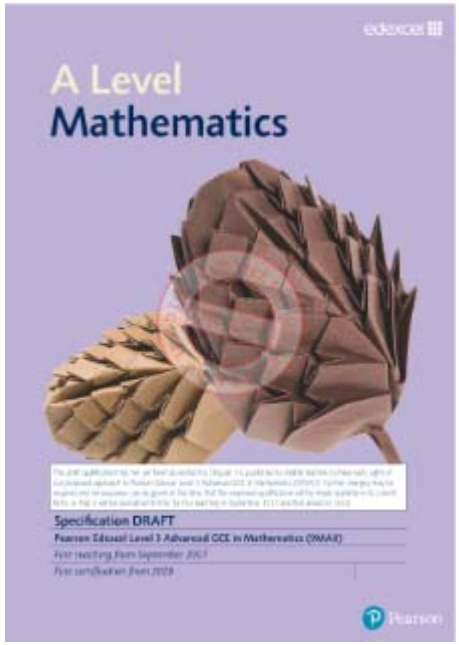

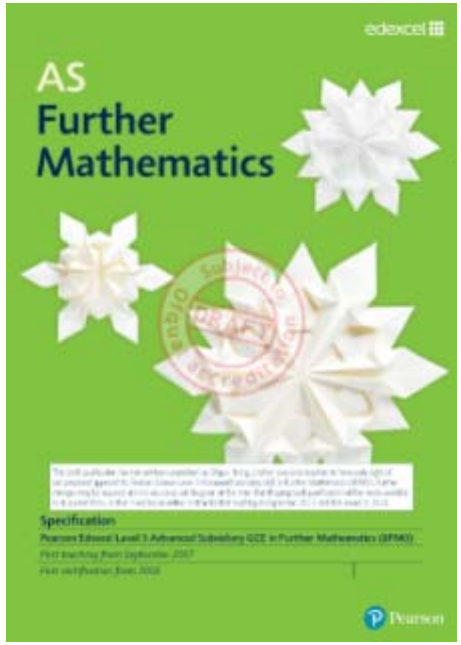

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Our design principles

- Separate pure and applied papers
- Simple 2:1 ratio of pure to applied
- Specific content defined for each paper
- A level papers aligned with AS content
- Single large data set for the lifetime of the qualification
- Further mathematics designed to aid parallel delivery with mathematics
- No non-calculator assessment

Overview of the specification

AS level Mathematics

Paper 1: Pure Mathematics 67% 2 hours 100 marks
Paper 2: Mechanics and Statistics 33% 1 hour 50 marks

Overview of the specification

A level Mathematics

Paper 1: Pure Mathematics 33% 2 hours 100 marks	AS level pure mathematics content – same content as AS paper 1 but tested at A level demand
Paper 2: Pure Mathematics 33% 2 hours 100 marks	Remaining A level pure mathematics content – AS content is assumed knowledge and can be tested
Paper 3: Mechanics and Statistics 33% 2 hours 100 marks	

Overview of the specification

AS level Further Mathematics

Paper 1: Further Pure Mathematics 1 50% 1 hour 30 mins 75 marks	Compulsory
Paper 2: Further Mathematics Option 50% 1 hour 30 mins 75 marks	Students take one of the following four options 2A: Further Pure Mathematics 2 2B: Further Statistics 2C: Further Mechanics 2D: Decision Mathematics

Overview of the specification

A level Further Mathematics

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Paper 1: Further Pure Mathematics 1 25% 1 hour 30 mins 75 marks	Compulsory
Paper 2: Further Pure Mathematics 2 25% 1 hour 30 mins 75 marks	Compulsory
Paper 3: Further Mathematics Option 1 25% 1 hour 30 mins 75 marks	Students take two optional papers with options available in • Further Pure Mathematics • Further Statistics • Further Mechanics • Decision Mathematics
Paper 4: Further Mathematics Option 2 25% 1 hour 30 mins 75 marks	

A level Further Mathematics options

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For papers 3 and 4 students choose a pair of options, either

- any two from column A, or
- a matching pair from columns A and B

Column A	Column B
Further Pure Mathematics 3	Further Pure Mathematics 4
Further Statistics 1	Further Statistics 2
Further Mechanics 1	Further Mechanics 2
Decision Mathematics 1	Decision Mathematics 2

AS/A level Further Mathematics – content matches

AS level papers
* Further Pure Mathematics 1
Further Pure Mathematics 2
Further Statistics
Further Mechanics
Decision Mathematics

A level papers
* Further Pure Mathematics 1
* Further Pure Mathematics 2
Further Statistics 1
Further Mechanics 1
Decision Mathematics 1
Further Pure Mathematics 3
Further Pure Mathematics 4
Further Statistics 2
Further Mechanics 2
Decision Mathematics 2

* indicates compulsory papers

AS level Mathematics – paper content

Paper 1: Pure Mathematics
(Paper code: 8MA0/01)

Content overview

- Topic 1 – Proof
- Topic 2 – Algebra and functions
- Topic 3 – Co-ordinate geometry in the (x, y) plane
- Topic 4 – Sequences and series
- Topic 5 – Trigonometry
- Topic 6 – Exponentials and logarithms
- Topic 7 – Differentiation
- Topic 8 – Integration
- Topic 9 – Vectors

Paper 2: Statistics and Mechanics
(Paper code: 8MA0/02)

Content overview

Section A: Statistics

- Topic 1 – Statistical sampling
- Topic 2 – Data presentation and interpretation
- Topic 3 – Probability
- Topic 4 – Statistical distributions
- Topic 5 – Statistical hypothesis testing

Section B: Mechanics

- Topic 6 – Quantities and units in mechanics
- Topic 7 – Kinematics
- Topic 8 – Forces and Newton's laws

A level Mathematics – paper content

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Paper 1: Pure Mathematics 1 (Paper code: 9MA0/01)	Paper 2: Pure Mathematics 2 (Paper code: 9MA0/02)	Paper 3: Statistics and Mechanics (Paper code: 9MA0/03)
Content overview	Content overview	Content overview
• Topic 1 – Proof	• Topic 1 – Proof	Section A: Statistics
• Topic 2 – Algebra and functions	• Topic 2 – Algebra and functions	• Topic 1 – Statistical sampling
• Topic 3 – Co-ordinate geometry in the (x, y) plane	• Topic 3 – Co-ordinate geometry in the (x, y) plane	• Topic 2 – Data presentation and interpretation
• Topic 4 – Sequences and series	• Topic 4 – Sequences and series	• Topic 3 – Probability
• Topic 5 – Trigonometry	• Topic 5 – Trigonometry	• Topic 4 – Statistical distributions
• Topic 6 – Exponentials and logarithms	• Topic 6 – Differentiation	• Topic 5 – Statistical hypothesis testing
• Topic 7 – Differentiation	• Topic 7 – Integration	Section B: Mechanics
• Topic 8 – Integration	• Topic 8 – Numerical methods	• Topic 6 – Quantities and units in mechanics
• Topic 9 – Vectors	• Topic 9 – Vectors	• Topic 7 – Kinematics
		• Topic 8 – Forces and Newton's laws
		• Topic 9 – Moments

AS level Further Mathematics – paper content

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Paper 1: Further Pure Mathematics 1 (Paper code: 8FM0/01)
Content overview Proof, Complex numbers, Matrices, Further Algebra and functions, Further calculus, Further vectors

Paper 2: Further Mathematics Option2 (Paper codes: 8FM0/2A-2D)
Content overview Students take one of the following four options:
2A: Further Pure Mathematics 2 - Complex numbers, Further Algebra and functions, further calculus, Polar coordinates, Hyperbolic functions, Differential equations
2B: Further Statistics - Linear Regression, Statistical distributions (Discrete), Statistical distributions (Continuous), Correlation, Hypothesis Testing, Chi Squared Tests
2C: Further Mechanics - Momentum and impulse, Collisions, Centres of mass, Work and energy, Elastic strings and springs
2D: Decision Mathematics - Algorithms and graph theory, Algorithms on Graphs, Algorithms on Graphs II, Critical Path Analysis, Linear Programming

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A level Further Mathematics – paper content

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Paper 1: Further Pure Mathematics 1 (Paper code: 9FM0/01)

Content overview

Proof, Complex numbers, Matrices, Further Algebra and functions, Further calculus, Further vectors

Paper 2: Further Pure Mathematics 2 (Paper code: 9FM0/02)

Content overview

Complex numbers, Further Algebra and functions, further calculus, Polar coordinates, Hyperbolic functions, Differential equations

Paper 3: Further Mathematics Option 1 (Paper codes: 9FM0/3A-3D) and

Paper 4: Further Mathematics Option 2 (Paper codes: 9FM0/4A-4G)

Content overview

Students take two of the following eight options:

Further Pure Mathematics 3 - Further calculus, Further Differential Equations, Coordinate Systems, Further Vectors, Further Numerical Methods, Inequalities

Further Pure Mathematics 4 - Groups, Further Calculus, Further Matrix Algebra, Further Complex Numbers, Number Theory, Further Sequences and series

Further Statistics 1 - Linear Regression, Statistical distributions (Discrete), Statistical distributions (Continuous), Correlation, Hypothesis Testing, Chi Squared Tests

Further Statistics 2 - Probability Distributions, Combinations of random variables, Estimation, confidence intervals and tests using a normal distribution, Other Hypothesis Tests and confidence intervals, Other Hypothesis Tests and confidence intervals, Probability generating functions, Quality of tests and estimators

Further Mechanics 1 - Momentum and impulse, Collisions, Centres of mass, Work and energy, Elastic strings and springs

Further Mechanics 2 - Further kinematics, Further dynamics, Motion in a circle, Statics of rigid bodies, Elastic collisions in two Dimensions

Decision Mathematics 1 - Algorithms and graph theory, Algorithms on Graphs, Algorithms on Graphs II, Critical Path Analysis, Linear Programming

Decision Mathematics 2 - Transportation Problems, Allocation (Assignment) Problems, Flows in Networks, Dynamic Programming, Game Theory, Recurrence Relations, Decision Analysis

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AS and A level

Mathematics and Further Mathematics

2017

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Assessment

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GCE Mathematics questions AS and A level demand

AS level

10.

$$f(x) = 4x^3 - 12x^2 + 2x - 6$$

(a) Use the factor theorem to show that $(x - 3)$ is a factor of $f(x)$.

(2)

(b) Hence show that 3 is the only real root of the equation $f(x) = 0$

(4)

A level

2. $$f(x) = 2x^3 + 5x^2 + 8x + a$$

Given that $(x+3)$ is a factor of $f(x)$, use the factor theorem to find the value of the constant a.

(2)

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Assessment objectives – A level Pure paper 1

2.3 assess the validity of mathematical arguments

4. A class of A level students were given the following question.

Solve, for $-90° < \theta < 90°$, the equation

$$\cos\theta = 2\sin\theta$$

The attempts of two of the students are shown below

Student *A*

$\cos\theta = 2\sin\theta$
$\tan\theta = 2$
$\theta = 63.4$

Student *B*

$\cos\theta = 2\sin\theta$
$\cos^2\theta = 4\sin^2\theta$
$1-\sin^2\theta = 4\sin^2\theta$
$\sin\theta = \pm\frac{1}{\sqrt{5}}$
$\theta = \pm 26.6°$

(a) Identify the error made by student *A*.

(1)

(b) Identify the error made by student *B*, and explain how this effects their solution.

(2)

(c) Write down the correct answer to the question.

(1)

Assessment objectives – A level Pure paper 2

2.4 explain their reasoning

9. $f(x) = \ln(2x-5) + 2x^2 - 30, \quad x > 2.5$

(a) Show that $f(x) = 0$ has a root α in the interval $[3.5, 4]$

(2)

(b) Find $f'(x)$

(2)

(c) Taking 4 as a first approximation to α, apply the Newton-Raphson procedure once to $f(x)$ to obtain a second approximation for α, giving your answer to 3 decimal places.

(3)

Question	Scheme	Marks
9(a)	$f(3.5) = -4.8$, $f(4) = (+)3.1$	M1
	Change of sign and function continuous in interval $[3.5, 4] \Rightarrow$ Root	A1
		(2)
(b)	Attempts $f'(x)$ with $\ln(2x-5) \rightarrow \frac{A}{2x-5}$	M1
	$f'(x) = \frac{2}{2x-5} + 4x$	A1
		(2)
(c)	Attempts $x_1 = x_0 - \frac{f(x_0)}{f'(x_0)}$	M1
	$x_1 = 4 - \frac{3.099}{16.67}$	A1
	$x_1 = 3.814$	A1
		(3)
		(7 marks)

Assessment objectives – AS level Pure paper

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3.5b recognise the limitations of models

15.

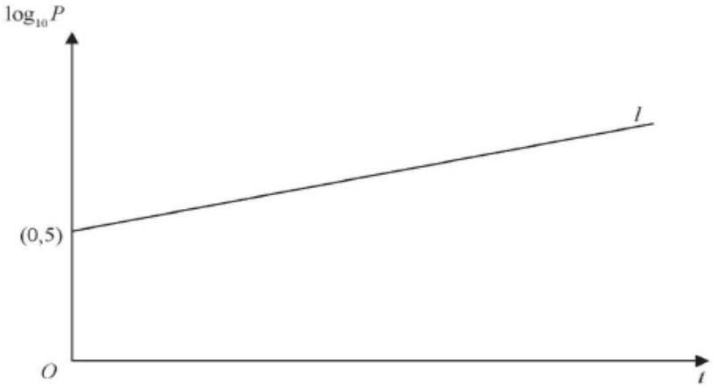

Figure 3

A town's population, P, is modelled by the equation $P = ab^t$, where a and b are constants and t is the number of years since the population was first recorded.

The line l shown in Figure 3 illustrates the linear relationship between t and $\log_{10} P$ for the population over a period of 100 years.

The line l meets the vertical axis at (0, 5) as shown. The gradient of l is $\frac{1}{200}$.

(a) Write down an equation for l.

(2)

(b) Find the value of a and the value of b.

(4)

(c) With reference to the model interpret the value of the constant a.

(1)

(d) Find the population predicted by the model when $t = 100$, giving your answer to the nearest hundred thousand.

(1)

(e) State one reason why this may not be a realistic population model.

(1)

Question	Scheme	Marks
15(a)	$\log_{10} P = mt + c$	M1
	$\log_{10} P = \frac{1}{200}t + 5$	A1
		(2)
(b)	As $P = ab^t$ then $\log_{10} P = t\log_{10} b + \log_{10} a$	M1
	so $\log_{10} b = \frac{1}{200}$ or $\log_{10} a = 5$	M1
	so $a = 100\,000$ **or** $b = 1.0116$	A1
	both $a = 100\,000$ **and** $b = 1.0116$	A1
		(4)
(c)	The initial population	B1
		(1)
(d)	300000 to nearest hundred thousand	B1
		(1)
(e)	Any valid reason- e.g. • 100 years is a long time and population may be affected by wars and disease • Inaccuracies in measuring gradient may result in widely different estimates • Population growth may not be proportional to population size • The model predicts unlimited growth	B1
		[1]
		(9 marks)

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Content – A level Pure paper 2

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10. Given that θ is measured in radians, prove, from first principles, that the derivative of $\sin\theta$ is $\cos\theta$

You may assume the formula for $\sin(A+B)$.

(5)

Question	Scheme	Marks	AOs
10.	For $y=\sin\theta$ states or implies gradient of chord $=\dfrac{\sin(\theta+\delta\theta)-\sin\theta}{\delta\theta}$	B1	2.1
	Uses the compound angle identity for $\sin(A+B)$ with $A=\theta,\quad B=\delta\theta$	M1	2.1
	Uses both identities $\sin\delta\theta\approx\delta\theta$ and $\cos\delta\theta\approx1-\dfrac{1}{2}(\delta\theta)^2$ in their expansion	M1	2.1
	$\Rightarrow$ gradient $=\dfrac{\sin\theta\left(1-\dfrac{1}{2}\delta\theta^2\right)+\cos\theta\times\delta\theta-\sin\theta}{\delta\theta}=\cos\theta-\dfrac{1}{2}\delta\theta\sin\theta$	A1	2.2a
	States as $\delta\theta\to0,\quad$ gradient $\to\dfrac{\mathrm{d}y}{\mathrm{d}\theta}=\cos\theta$	A1	2.5
			[5]
			(5 marks)

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Statistics – large data set – A level paper

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2 A meteorologist believes that there is a relationship between the daily mean windspeed, w, and the daily maximum temperature, t °C. A random sample of 10 consecutive days is taken from past records and the relevant data is given in the table below.

t	13.3	16.2	15.7	16.6	16.3	14.5	16.4	19.3	17.1	13.2
w	7	11	8	11	13	n/a	8	15	10	11

The windspeeds for one of the days is not available.

(a) (i) Calculate the product moment correlation coefficient for the 9 available days.

(1)

(ii) Show that an estimate for the daily mean windspeed for the missing piece of data in the table is 9.2 to 1 decimal place.

(3)

(b) State what is measured by the product moment correlation coefficient.

(1)

(c) Stating your hypotheses clearly test, at the 5% significance level, whether or not the product moment correlation coefficient for the population is greater than zero.

(3)

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Mechanics – problem solving – A level paper

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2. A rough plane is inclined to the horizontal at an angle α, where $\tan\alpha = \frac{3}{4}$. A particle of mass m is placed on the plane and then projected up a line of greatest slope of the plane. The coefficient of friction between the particle and the plane is μ.

The particle moves up the plane with a constant deceleration of $\frac{4}{5}g$.

Find the value of μ. **(8)**

Question	Scheme	Marks	AOs
2.	Resolve perpendicular to the plane	M1	3.1b
	$R = mg\cos\alpha$	A1	1.1b
	Resolve parallel to the plane	M1	3.1b
	$-F - mg\sin\alpha = -0.8mg$	A1 A1	1.1b 1.1b
	$F = \mu R$	M1	1.2
	Produce an equation in μ only and solve for μ	M1	2.2a
	$\mu = \frac{1}{4}$	A1	1.1b
		Total 8	

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AS and A level

Mathematics and Further Mathematics

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Support

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Supporting great mathematics teaching

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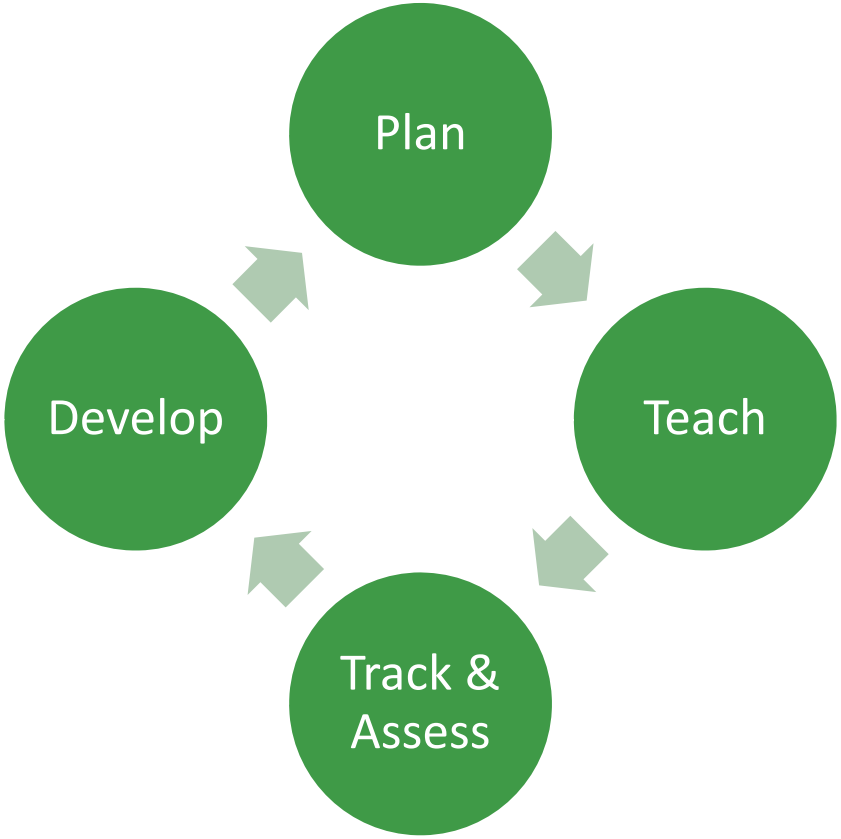

Free Qualifications Support:
qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html

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Free support

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- **Plan**:
  - schemes of work and course planners to help you deliver the qualifications in the best way for your centre
  - content mapping documents
  - getting started guide
- **Teach**:
  - topic-based resources to use in the classroom, particularly for the new and unfamiliar topics
  - content exemplification
- **Track and Assess**:
  - specimen papers
  - secure mock papers
  - practice papers
  - assessment guide
  - exemplar solutions
- **Develop**:
  - a full programme of launch and training events
  - our collaborative network events
  - the famous Mathematics Emporium, led by Graham Cumming

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ResultsPlus and examWizard

- **ResultsPlus** provides the most detailed analysis available of your students' exam performance. This free online service helps you identify topics and skills where students could benefit from further learning, helping them gain a deeper understanding of mathematics.

- **examWizard** is a free exam preparation tool containing a bank of past Edexcel mathematics exam questions, mark schemes and examiners' reports, so you can create mock papers, homework or practice tests in minutes.

Mathematics Collaborative Networks

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Promoting best practice and innovation with local support

- Our **free local teaching networks** help support, train and share best practice with maths teachers and heads of department across the country
- We work with schools and colleges whose **innovative maths teaching practices** have shown a direct benefit to their students
- These schools and colleges become recognised as 'hub' centres and lead a collaborative network in their region.

Find your local hub using our map!

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Interactive Schemes of Work

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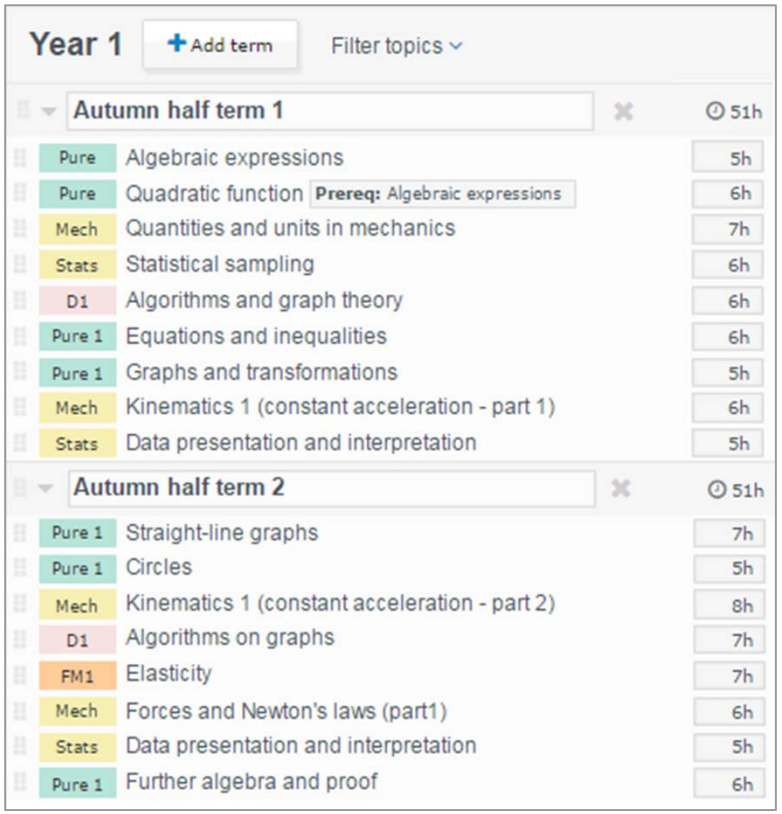
- Suggested teaching orders for any combination of Maths and Further Maths
- Timings and prerequisites clearly labelled
- Fully editable: move content around, change timings, change term structures, add your own resources etc
- Drill down to see detailed teaching notes and guidance
- Integrates with ActiveLearn Digital Service (paid-for)



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Published resources

We are committed to helping teachers deliver our Edexcel qualifications and students to achieve their full potential. To do this, we aim for our qualifications to be supported by a wide range of high-quality resources, produced by a range of publishers.

However, it is not necessary to purchase published resources to deliver our qualifications.

Published resources

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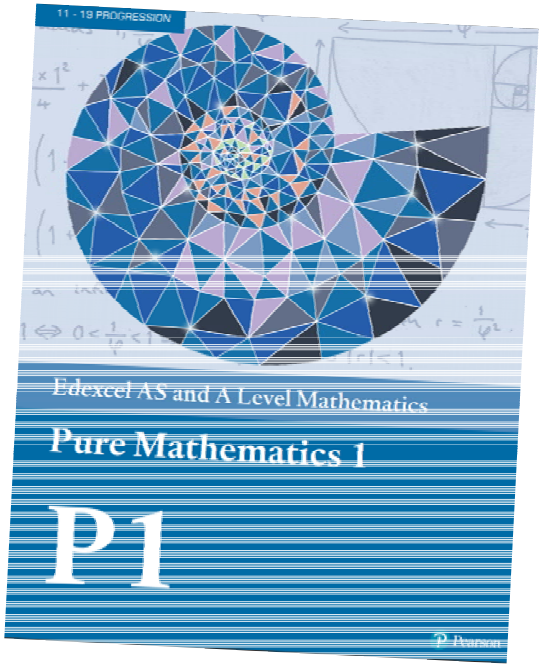
Pearson's brand-new resources* for Edexcel AS and A level Mathematics and Further Mathematics are being fully updated for 2017

- **x3 Student Books + ebooks** for AS and A level Mathematics: Pure 1, Pure 2 and Applied (only Pure 1 and Applied are needed at AS level).
- **x10 Student Books + ebooks** to choose from to cover all the core and optional AS and A level Further Mathematics content.
- **ActiveLearn Digital Service** for front-of-class ebook versions of the Textbooks with interactive resources for teaching and independent study, progression and assessment materials, and it is integrated with Edexcel's free interactive schemes of work.



*These resources have not yet been endorsed.
You do not have to purchase any resources to deliver our qualification.

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Published resources

Our simple structure of one textbook per A level exam paper means that you and your students have all you need for each exam in one place, giving you the best exam preparation.

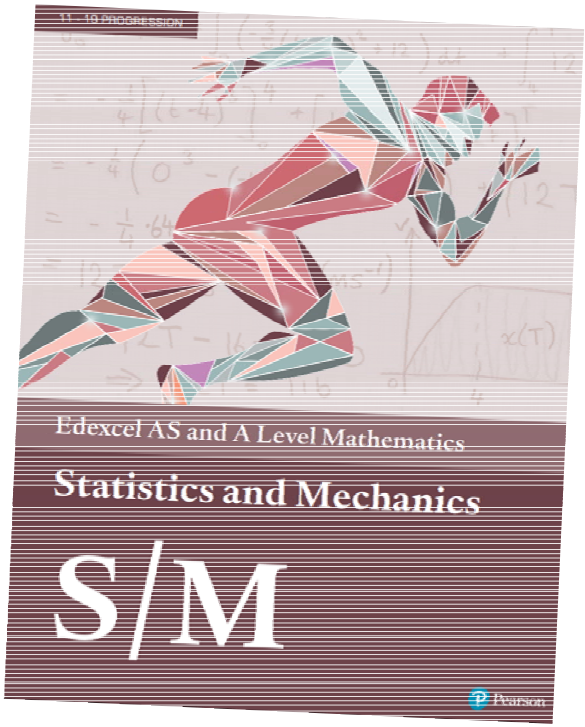
Our textbooks:

- **retain all the features you know and love** including worked examples, SolutionBank, lots of exam-style questions, Practice papers and plenty of Mixed and Review exercises
- **are fully updated to match the new specifications**, with more of a focus on problem-solving and modelling as well as supporting the large data sets and new calculators
- **come packed with additional online content** to support independent learning, including e-book versions, videos, graphing activities and our much-loved SolutionBank feature, which provides worked solutions for all questions
- **are aligned with all the free qualification support**, including the Schemes of Work, Topic tests and exam practice materials

Published resources

edexcel

You've told us you'd like plenty of time to prepare for first teaching, and so we'll be making the 'Statistics and Mechanics' Pearson textbook content for AS level Mathematics available online for FREE from early 2017.



This will help you:

- familiarise yourselves with the Statistics and Mechanics content that is now compulsory for A level Mathematics
- get some ideas on how to use the large data set in your teaching
- understand how the new calculators can be used with Statistics and Mechanics

Book an appointment

Talk to one of our maths experts to understand what's right for you and your students. Book an appointment at:
www.pearsonschools.co.uk/alevelmathsappointment

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Other published resources

We are working with a range of publishers who are looking towards getting their resources endorsed.

- **Collins**: Collins' A-level Maths resources. Master the new linear A-level with Collins' brand new Student Books, providing full and flexible course coverage for AS and A-level.
- **Hodder Education**: Develop your students' understanding of mathematical concepts and their applications with the only Edexcel resources developed with subject specialist Keith Pledger and Mathematics in Education and Industry (MEI).
- **Oxford University Press**: Edexcel A Level Maths is a brand new course focused on problem-solving and assessment, with accessible resources to support transition from GCSE.

No paid-for products or services are required to deliver Pearson Edexcel qualifications.

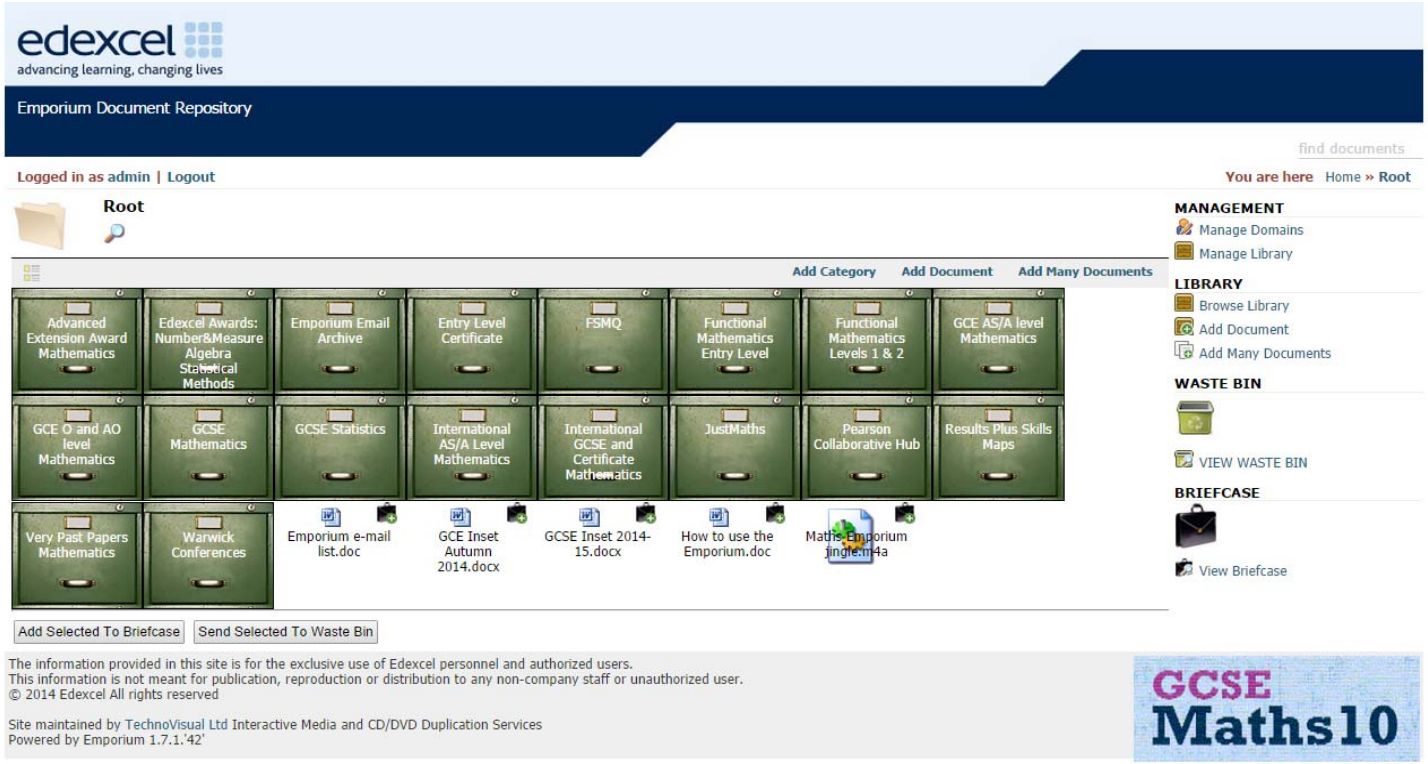
Contact details

Subject Advisor

- email: teachingmaths@pearson.com
- telephone: 020 7010 2174
- Twitter: @EmporiumMaths
- qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html

Mathematics Emporium

- Website at www.edexcelmaths.com



- Emails from mathsemporium@pearson.com

Next steps

- Please complete your evaluation form for today's event.
- Sign up to Emporium updates: email mathsemporium@pearson.com
- Visit the website for support materials and sign up for updates: qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html

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Thank you
and
any questions?

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