

# Pearson Edexcel Level 3 GCE

May–June 2022 Assessment Window

Syllabus  
reference

**8MA0**

## Mathematics

### Advanced Subsidiary Advance Information

You are not permitted to take this notice into the examination.  
This document is valid if downloaded from the [Pearson Qualifications website](https://www.pearson.com/qualifications).

### Instructions

- Please ensure that you have read this notice before the examination.

### Information

- This notice covers all examined components.
- The format/structure of the assessments remains unchanged.
- This advance information details the focus of the content of the exams in the May–June 2022 assessments.
- There are no restrictions on who can use this notice.
- This notice is meant to help students to focus their revision time.
- Students and teachers can discuss advance information.
- This document has 4 pages.

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## General advice

- In addition to covering the content outlined in the advance information, students and teachers should consider how to:
  - manage their revision of parts of the specification which may be assessed in areas not covered by the advance information
  - manage their revision of other parts of the specification which may provide knowledge that helps with understanding the areas being tested in 2022.
- For specifications with synoptic assessments, topics not explicitly given in the advance information may appear, e.g. where students are asked to bring together knowledge, skills and understanding from across the specification.
- For specifications with optional papers, students should only refer to the advance information for their intended option.
- For specifications with NEA, advance information does not cover any NEA components.

A link to the Joint Council for Qualifications guidance document on advance information can be found on the Joint Council for Qualifications website or [here](#).

## **Advance Information**

### **Subject specific section**

- For each paper, the lists below show the major focus of the content of the exams.
- Questions will be drawn from one or more of these areas of the specification content.
- The aim should still be to cover all specification content in teaching and learning.
- The information is presented in approximate specification order and not in question order.

### **Paper 8MA0/01 Pure Mathematics 1**

- Formal proof
- Manipulation of polynomials, factor theorem, roots of equations
- Graphs of functions, factorisation
- Coordinate geometry of circles and straight lines
- The binomial expansion
- Sine and cosine rules
- Trigonometric equations and identities
- Exponentials: Use of formula and rate of change
- Laws of logarithms
- Logarithmic graphs to estimate parameters
- Tangents and normals, area under a curve
- Use calculus to find minima
- Integration of  $x^n$  and related sums, differences and constant multiples
- Vectors: addition, subtraction and magnitude, solving problems in pure mathematics

### **Paper 8MA0/21 Statistics**

- Histogram and connection to probability distributions
- Box and whisker plots
- Regression lines; correlation
- Discrete probability distributions
- Hypothesis testing and significance level

### **Paper 8MA0/22 Mechanics**

- Use and interpret graphs in kinematics
- Constant acceleration
- Variable acceleration in a straight line
- Dynamics of connected particles moving in a straight line, Newton's laws

### **END OF ADVANCE INFORMATION**

