# M.K. HOME TUITION

Level: A-Level Year 2

# LINKS TO EXAMINATION QUESTIONS

Here is a selection of questions by subject, taken from past GCE A-Level examination papers. The older ones (pre-2017) are mostly grouped by subject topic, although there are also several longer multi-topic questions as well.

## **Current Past Paper Questions (2017 onwards)**

These are condensed past papers, merged by year and edited to include only the pure mathematics questions.

#### Exam board

AQA	Specimen	<u>2018</u>	2019	2020	<u>2021</u>	<u>2022</u>
Pearson	Specimen	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
OCR	Specimen	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
OCR MEI	Specimen	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>

Sources: Various

## **Older Past Paper Questions by Topic.**

These questions are all from past GCE A-Level exam papers (2017 and earlier), providing a good overlap with current course material, even though several questions had to be modified, and certain other topics omitted.

## Algebra

**Functions** 

The Modulus Function

**Rational Expressions** 

**Partial Fractions** 

Cartesian and Parametric Form

## **Sequences and Series**

Sequences

The Arithmetic Series

The Geometric Series

The Binomial Series for Rational Powers

**Mixed Series** 

# **Trigonometry**

Radian Measure

Further Trigonometric Equations and Identities

<u>Trigonometric Equations – Harmonic Form</u>

Trigonometric Equations – Compound Angles

#### Calculus

<u>Differentiation - Chain, Product and Quotient Rules</u>

Parametric Differentiation

**Implicit Differentiation** 

Miscellaneous Integration

<u>Integration by Substitution</u>

**Integration by Parts** 

**Differential Equations** 

Mixed Calculus Questions

#### **Numerical Methods**

Formula Iteration

The Newton-Raphson Method

Numerical Integration – Trapezium Rule