

AQA Year 12 Mathematics – June 2023 Assessments

Overview

- There will be two papers, both lasting 90 minutes
- Paper 1 is on Pure Mathematics and Mechanics, whilst Paper 2 is on Pure Mathematics and Statistics
- They will be both marked out of 80 marks

Topics to Revise

Pure Mathematics

- Area under a curve
- Binomial expansion and coefficients
- Conditions for real or repeated roots of a quadratic
- Coordinate geometry
- Equation of circle
- Exponential models
- Factorising cubics
- Factorising polynomials
- Inequalities
- Integrating polynomial
- Interpreting inequalities graphically
- Laws of logarithms
- Manipulating surds
- Periodicity of trigonometric functions
- Proof
- Quadratics
- Second derivative of a function
- Simultaneous equations
- Sine and cosine rules
- Stationary points of a curve
- Tangents and normals to a curve
- The natural logarithm function
- Transformations of graphs
- Trigonometric equations
- Trigonometric functions
- Trigonometric identities

Mechanics

- Calculus in kinematics
- Constant acceleration formulae
- Constant acceleration formulae: motion due to gravity
- Forces in 2D
- Newton's laws of motion: magnitude and direction of a vector
- Newton's laws of motion: weight
- Velocity-time graphs

Statistics

- Binomial distribution
- Discrete probability distributions
- Hypothesis test for proportion, binomial distribution
- Interpreting statistical diagrams, distributions
- Mean and standard deviation
- Probabilities from a binomial distribution
- Sampling techniques

Revision Resources

Specification and subject content

The guidance document which covers what the topic area entails can be found within your Microsoft Teams area

TL Maths

Videos covering the Year 12 part of the course can be found here <https://www.tlmaths.com/home/a-level-maths/as-only>

Kerboodle

www.kerboodle.com

Access to the digital textbook for this course as well as podcasts and other resources.

Revision Tips

- Past papers should be available from your individual teachers; a selection will also be available in the back of 105.
- As per usual work through questions, highlight areas you are struggling on and then find teachers to help or use TL Maths/Kerboodle
- We are also here on Thursdays after school in 105