



Cambridge Pre-U Further Mathematics (9795)

Additional guidance for this syllabus

Additional guidance given for this syllabus applies to specific components. The information below gives a brief description of the main topic covered by each question, given in approximate syllabus order.

Additional guidance for Component 9795/01: Further Pure Mathematics

Questions on this component will address the following topics:

Topic focus
Rational functions
Roots of polynomials
Complex numbers in cartesian form and loci
de Moivre's theorem and trigonometry applied to roots of equations
Polar coordinates involving calculus
Summation of series
Mathematical induction: series sum
Calculus: arc length
Solving equations involving hyperbolic functions
Differential equations: first-order
Vector geometry
Matrices and transformations
Groups

**Additional guidance for Component 9795/02: Further Applications of Mathematics**

Questions on this component will address the following topics:

Topic focus
Poisson distribution probabilities from formula
Approximations to the binomial distribution
Cumulative distribution functions
Calculating unbiased estimates; confidence intervals
Probability generating functions
Find moment generating functions and use for combinations of variables
Solve problems involving power
Motion in a vertical circle
Solve problems involving the equilibrium of a rod
Solve problems involving elastic strings
Solve problems involving SHM
Oblique impact of particle and plane; projectile motion