

TMUA Topics (5 pages ; 14/12/24)

(in roughly decreasing order of importance)

See “Index of Questions” for further questions.

Logic / Proof

[Common questions: error in reasoning; counterexamples; necessary & sufficient conditions]

Recommended questions:

2017, P2, Q20* (strategy for finding password)

2021, P2, Q6*

2021, P2, Q15*

Trigonometry

Recommended questions:

2018, P1, Q20*

2021, P2, Q18*

2021, P2, Q19*

2022, P1, Q16* (equation)

2022, P2, Q18* (matching curves to equations)

2023, P1, Q12* (number of solutions of equation)

Quadratics

Recommended questions:

2019, P2, Q16*

2022, P1, Q12*

2023, P1, Q11*

Polynomials

Recommended questions:

2016, P2, Q14* (number of roots)

2021, P2, Q6*

2022, P1, Q18* (number of roots)

2023, P2, Q19*

Inequalities

Recommended questions:

2017, P1, Q19*

2022, P2, Q14*

Logarithms

Recommended questions:

2019, P2, Q15*

2021, P2, Q17*

2021, P1, Q20* (length of curve)

2022, P1, Q11*

Transformations of functions

Recommended questions:

2017, P1, Q18*

2018, P1, Q18*

2020, P1, Q9*

2021, P1, Q18* (rotation of curve)

Curve Sketching / Cubics

Recommended questions:

2022, P2, Q18* (matching curve to equation)

2023, P1, Q14* (cubic)

Algebra / Indices / Equations / Simultaneous equations

Recommended questions:

2021, P2, Q16*

2022, P1, Q13*

2022, P1, Q20* (intersection of curves)

2016, P1, Q11* (Indices)

2023, P2, Q6*

Counting / Probability

Recommended questions:

2019, P2, Q12* (Probability)

Geometry / Circles

Recommended questions:

2018, P1, Q19* (triangles)

2021, P2, Q7*

2021, P2, Q15*

2022, P1, Q15* (maximum area of rectangle)

2022, P1, Q17* (triangles)

2023, P1, Q16* (right-angled triangle)

2023, P1, Q17* (circles)

2023, P2, Q14* (parallel & perpendicular lines)

Sequences & Series / Arithmetic Series / Geometric Series / Binomial expansions / Recurrence Relations

Recommended questions:

2023, P1, Q18* (infinite series)

Integers / Prime numbers

Differentiation

Integration

[Common questions: Trapezium rule]

Recommended questions:

2021, P2, Q20*

Functions / Exponential function / Modulus function

Recommended questions:

2022, P1, Q9* (minimum value)

2023, P1, Q15* (minimum & maximum values)

2023, P1, Q20* (minimum & maximum values)

2023, P2, Q20*

Statistics

Solids