



UNIVERSITY
COLLEGIATE
SCHOOL

A MEMBER OF
QUEST

Mathematics

Summer:
Enrolment on to T
level, A-level or
apprenticeship.

Revision & Exams

Reasoning

- 7) Multiplicative
- 8) Geometric
- 9) Algebraic

Revision & Communication

- 10) Transforming & Constructing
- 11) Listing & Describing
- 12) Show that...

Algebra

- 4) Expanding & Factorising
- 5) Changing the Subject
- 6) Function

Graphs

- 1) Gradients & Lines
- 2) Non-Linear Graphs
- 3) Using Graphs

Geometry

- 5) Angles & Bearings
- 6) Working with Circles
- 7) Vectors

Delving into Data

- 11) Collecting, representing and interpreting data

Developing Algebra

- 3) Representing Solutions of Equations & Inequalities
- 4) Simultaneous Equations

Proportions & Proportional Change

- 8) Ratios & Fractions
- 9) Percentages & Interest
- 10) Probability

Using Number

- 12) Non-Calculator Methods
- 13) Types of Number & Sequences
- 14) Indices & Roots

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Similarity

- 1) Congruence, Similarity & Enlargement
- 2) Trigonometry

Representations & Revision

- 15) Probability
- 16) Algebraic Representation
- 17) Revision

Reasoning with Geometry

- 9) Deduction
- 10) Rotation & Translation
- 11) Pythagoras' Theorem

Constructing in 2D & 3D

- 4) Three-dimensional Shapes
- 5) Constructions & Congruency

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Reasoning with Proportion

- 12) Enlargement & Similarity
- 13) Solving Ratio & Proportion Problems
- 14) Rates

Reasoning with Number

- 6) Numbers
- 7) Using Percentages
- 8) Maths & Money

Reasoning with Algebra

- 1) Straight Line Graphs
- 2) Forming & Solving Equations
- 3) Testing Conjectures

Algebraic Techniques

- 7) Brackets, equations & inequalities
- 8) Sequences
- 9) Indices

Developing Geometry

- 13) Angles in Parallel Lines & Polygons
- 14) Area of Trapezia & Circles
- 15) Line Symmetry & Reflection

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Proportional Reasoning

- 1) Ratio & Scale
- 2) Multiplicative Change
- 3) Multiplying & Dividing Fractions

Representations

- 4) Working in the Cartesian Plane
- 5) Representing Data
- 6) Tables & Probability

Developing Number

- 10) Fractions & Percentages
- 11) Standard Form
- 12) Number Sense

Reasoning with Data

- 16) The Data Handling Cycle
- 17) Measures of Location

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Lines & Angles

- 12) Constructing, measuring & using geometric notation

Directed Number

- 10) Four Operations with Directed Number

Place Value & Proportion

- 4) Place Value
- 5) Ordering Integers & Decimals
- 6) FDP Equivalence

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Reasoning with Number

- 13) Developing Number Sense
- 14) Sets & Probability
- 15) Prime Numbers & Proof

Fractional Thinking

- 11) Addition & Subtraction with Fractions

Application of Number

- 7) Addition & Subtraction
- 8) Multiplication & Division
- 9) Fractions & Decimals of Amounts

Algebraic Thinking

- 1) Sequences
- 2) Algebraic Notation
- 3) Equality & Equivalence