

Higher Course Content Edexcel (Set 1, 2 and 3)

Unit 1

Number problems AND REASONING

Place value and estimating

HCF and LCM

Calculating with powers (Indices)

Zero, negative and fractional indices

Powers of 10 and standard form

Surds

Unit 2

Algebraic indices

Expanding and factorising

Equations

Formulae

Linear Sequences

Non-linear sequences

Unit 3

Statistical diagrams

Time series

Scatter graphs

Line of best fit

Averages and range

Unit 4

Fractions

Ratios

Ratio and proportion

Percentages

Fractions, decimals and percentages

Unit 5

Angles properties of triangles and quadrilaterals

Interior angles of a polygon

Exterior angles of a polygon

Pythagoras' theorem

Trigonometry

Inverse trigonometry

### Unit 6

Linear graphs

Graphing rates of change

Real life graphs

Line segments

Quadratic graphs

Cubic and reciprocal graphs

### Unit 7

Perimeter and area

Units and accuracy

Prisms

Circles

Sectors of circles

Cylinders and spheres

Pyramids and cones

### Unit 8

3D solids

Reflection

Rotation

Enlargement

Translations

Combinations of transformations

Bearings and scale drawings

Constructions

Loci

### Unit 9

Solving quadratic equations  
Completing the square  
Solving simultaneous equations  
Solving quadratic simultaneous equations  
Solving linear inequalities

### Unit 10

Combined events  
Mutually exclusive events  
Experimental probability  
Independent events and tree diagrams  
Conditional probability  
Venn diagrams and set notation

### Unit 11

Growth and decay – reverse percentages, percentage increase and decrease  
Compound measures  
Ratio and proportion

### Unit 12

Congruence  
Geometric proof and congruence  
Similarity  
Similarity in 3D shapes

### Unit 13

Accuracy  
Graph of the sine function  
Graph of the cosine function  
The tangent function  
Calculating areas and the sine rule  
The cosine rule and 2D trigonometric problems  
Solving problems in 3D.  
Transforming trigonometric graphs

#### Unit 14

Sampling

Cumulative frequency

Box plots

Drawing histograms

Interpreting histograms

Comparing and describing populations

#### Unit 15

Solving simultaneous equations graphically

Graphs of quadratic functions

Solving quadratic equations graphically

Graphs of cubic functions

#### Unit 16

Radii and chords

Tangents

Angles in circles

Apply circle theorems

#### Unit 17

Rearranging formulae

Algebraic fractions

Simplifying algebraic fractions

Surds

Solving algebraic fraction equations

Functions

Proof

#### Unit 18

Vectors and vector notation

Vector arithmetic

Parallel vectors and collinear points

Solving geometric problems

## Unit 19

Direct proportion

Inverse proportion

Exponential functions

Non-linear graphs

Translating graphs of functions

Reflecting and stretching graphs of functions