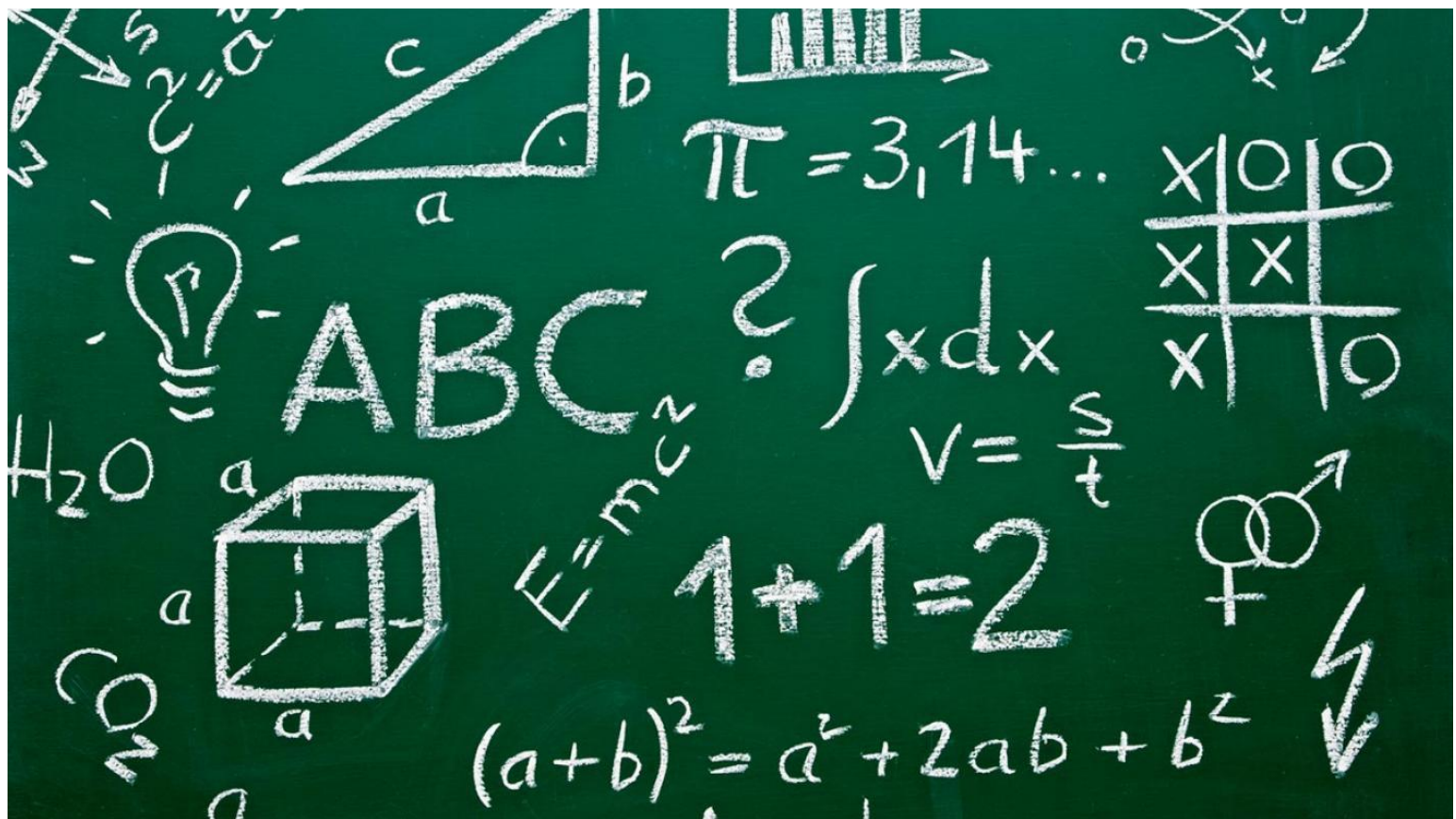


Edexcel GCSE Mathematics 9-1

Higher Tier

Topic List



Edexcel GCSE Mathematics 9-1 Higher: Topic List

UNIT 1: NUMBER

- 1.1: Number problems and reasoning
- 1.2: Place value and estimating
- 1.3: HCF and LCM
- 1.4: Calculating with powers (indices)
- 1.5: Zero, negative and fractional indices
- 1.6: Powers of 10 and standard form
- 1.7: Surds

UNIT 2: ALGEBRA

- 2.1: Algebraic indices
- 2.2: Expanding and factorising
- 2.3: Equations
- 2.4: Formulae
- 2.5: Linear sequences
- 2.6: Non-linear sequences
- 2.7: More expanding and factorising

UNIT 3: INTERPRETING AND REPRESENTING DATA

- 3.1: Statistical diagrams 1
- 3.2: Time series
- 3.3: Scatter graphs
- 3.4: Line of best fit
- 3.5: Averages and range
- 3.6: Statistical diagrams 2

UNIT 4: FRACTIONS, RATIO AND PERCENTAGES

- 4.1: Fractions
- 4.2: Ratios
- 4.3: Ratio and proportion
- 4.4: Percentages
- 4.4: Fractions, decimals and percentages

UNIT 5: ANGLES AND TRIGONOMETRY

- 5.1: Angle properties of triangles and quadrilaterals
- 5.2: Interior angles of a polygon
- 5.3: Exterior angles of a polygon
- 5.4: Pythagoras' theorem 1
- 5.5: Pythagoras' theorem 2
- 5.6: Trigonometry 1
- 5.7: Trigonometry 2

UNIT 6: GRAPHS

- 6.1: Linear graphs

- 6.2: More linear graphs
- 6.3: Graphing rates of change
- 6.4: Real-life graphs
- 6.5: Line segments
- 6.6: Quadratic graphs
- 6.7: Cubic and reciprocal graphs
- 6.8: More graphs

UNIT 7: AREA AND VOLUME

- 7.1: Perimeter and area
- 7.2: Units and accuracy
- 7.3: Prisms
- 7.4: Circles
- 7.5: Sectors of circles
- 7.6: Cylinders and spheres
- 7.7: Pyramids and cones

UNIT 8: TRANSFORMATIONS AND CONSTRUCTIONS

- 8.1: 3D solids
- 8.2: Reflection and rotation
- 8.3: Enlargement
- 8.4: Transformations and combinations of transformations
- 8.5: Bearings and scale drawings
- 8.6: Constructions 1
- 8.7: Constructions 2
- 8.8: Loci

UNIT 9: EQUATIONS AND INEQUALITIES

- 9.1: Solving quadratic equations 1
- 9.2: Solving quadratic equations 2
- 9.3: Completing the square
- 9.4: Solving simple simultaneous equations
- 9.5: More simultaneous equations
- 9.6: Solving linear and quadratic simultaneous equations
- 9.7: Solving linear inequalities

UNIT 10: PROBABILITY

- 10.1: Combined events
- 10.2: Mutually exclusive events
- 10.3: Experimental probability
- 10.4: Independent events and tree diagrams
- 10.5: Conditional probability
- 10.6: Venn diagrams and set notation

Edexcel GCSE Mathematics 9-1 Higher: Topic List

UNIT 11: MULTIPLICATIVE REASONING

- 11.1: Growth and decay
- 11.2: Compound measures
- 11.3: More compound measures
- 11.4: Ratio and proportion

UNIT 12: SIMILARITY AND CONGRUENCE

- 12.1: Congruence
- 12.2: Geometric proof and congruence
- 12.3: Similarity
- 12.4: More similarity
- 12.5: Similarity in 3D solids

UNIT 13: MORE TRIGONOMETRY

- 13.1: Accuracy
- 13.2: Graph of the sine function
- 13.3: Graph of the cosine function
- 13.4: The tangent function
- 13.5: Calculating areas and the sine rule
- 13.6: The cosine rule and 2D trigonometric problems
- 13.7: Solving problems in 3D
- 13.8: Transforming trigonometric graphs 1
- 13.9: Transforming trigonometric graphs 2

UNIT 14: FURTHER STATISTICS

- 14.1: Sampling
- 14.2: Cumulative frequency
- 14.3: Box plots
- 14.4: Drawing histograms
- 14.5: Interpreting histograms
- 14.6: Comparing and describing populations

UNIT 15: EQUATIONS AND GRAPHS

- 15.1: Solving simultaneous equations graphically
- 15.2: Representing inequalities graphically
- 15.3: Graphs of quadratic functions
- 15.4: Solving quadratic equations graphically
- 15.5: Graphs of cubic functions

UNIT 16: CIRCLE THEOREMS

- 16.1: Radii and chords
- 16.2: Tangents
- 16.3: Angles in circles 1
- 16.4: Angles in circles 2
- 16.5: Applying circle theorems

UNIT 17: MORE ALGEBRA

- 17.1: Rearranging formulae
- 17.2: Algebraic fractions
- 17.3: Simplifying algebraic fractions
- 17.4: More algebraic fractions
- 17.5: Surds
- 17.6: Solving algebraic fraction equations
- 17.7: Functions
- 17.8: Proof

UNIT 18: VECTORS AND GEOMETRIC PROOF

- 18.1: Vectors and vector notation
- 18.2: Vector arithmetic
- 18.3: More vector arithmetic
- 18.4: Parallel vectors and collinear points
- 18.5: Solving geometric problems

UNIT 19: PROPORTION AND GRAPHS

- 19.1: Direct proportion
- 19.2: More direct proportion
- 19.3: Inverse proportion
- 19.4: Exponential functions
- 19.5: Non-linear graphs
- 19.6: Translating graphs of functions
- 19.7: Reflecting and stretching graphs of functions