



TOP OF THE  
CLASS  
TUTORING

# TOTC REVISION CHECKLIST

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## Number

- Multiply decimals
- Product rule for counting
- Estimating
- Laws of indices
- Negative and fractional indices
- Highest common factor
- Lowest common multiple
- Product of prime factors
- Standard form conversions
- Standard form calculations
- Surds calculations
- Rational fractional surds
- Fraction calculations
- Recurring decimals
- Percentages of amounts
- Reverse percentages
- Error intervals
- Calculating upper and lower bounds

## Algebra

- Collecting like terms
- Substitution
- Laws of indices
- Expanding and simplifying
- Factorising expressions
- Expanding double brackets
- Factorising quadratics
- Expanding triple brackets
- Rearranging formulae
- Solving equations
- Linear sequences
- Quadratic/cubic graphs
- Reciprocal/exponential graphs
- Perpendicular lines
- Equations & tangents of circles
- Forming and solving equations
- Solving quadratic equations
- The quadratic formula
- Completing the square
- Solving linear inequalities
- Graphical inequalities
- Solving graphical inequalities
- Linear simultaneous equations
- Quadratic simultaneous equations
- Iterations
- Function calculations
- Inverse/composite functions
- Simplifying algebraic fractions
- Graph transformations

## Trigonometry

- Pythagoras Theorem
- 3D Pythagoras
- SOHCAHTOA side lengths
- Sine rule
- Cosine rule
- 3D trigonometry
- Area of a triangle
- Exact trigonometry
- Trigonometric graphs



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## Statistics

- Averages
- Reverse mean
- Averages from a table
- Grouped frequency tables
- Scatter graphs
- Frequency polygons
- Sampling and bias
- Pie charts
- Interquartile range
- Box plots
- Averages
- Cumulative frequency graphs
- Histograms

## Ratio & Proportion

- Sharing in a ratio
- Three part ratios
- Writing ratios as fractions
- Recipes
- Exchange rates
- Best value purchases
- Conversion graphs
- Compound interest
- Depreciation
- Direct proportion
- Inverse proportion
- Speed, distance & time
- Mass, density & volume
- Pressure, force & area
- Velocity time graphs
- Area under a graph
- Gradient of a graph
- Equating ratios

## Geometry

- Triangles & quadrilaterals
- Area of 2D shapes
- Angles in parallel lines
- Angles in a polygon
- Plans & elevations
- Constructions & loci
- Area and circumference
- Circle sectors
- Surface area of 3D shapes
- Volume of 3D shapes
- Cylinders, cones & sphere
- Transformations
- Bearings
- Similar shapes
- Congruent triangles
- Circle theorems
- Vectors
- Geometric proof

## Probability

- Probability from a table
- Relative frequency
- Venn diagrams
- Set theory
- Frequency trees
- Two way tables
- Probability trees
- Probability equations



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