

Suggested Topics for Edexcel GCSE Maths Paper 2 and Paper 3 Higher June 2017

Number	
BIDMAS (brackets)	
Interpret calculator displays	
Error intervals	
Compare fractions, decimals and percentages	
Fractions and ratio problems	
Recurring decimal to fraction (prove)	
Reverse fraction of an amount	
Powers and roots	
Multiples, factors, LCM and HCF	
Adding, subtracting, multiplying and dividing fractions (problem)	
Writing in standard form and calculating with standard form (calculator)	
Upper and lower bounds (including calculations)	
Simplify and manipulate surds	

Geometry and Measures	
Geometrical problems, alternate / corresponding angles and angles in polygons	
Perimeter and area of a triangle, parallelogram, and trapezium	
Area of a triangle using Area = $\frac{1}{2}ab \sin C$	
Perimeter of composite shapes	
Circumference and area of a circle, arc length and perimeter and area of a sector	
Calculations using exact Pi	
Properties of 3D Shapes and plans and elevations	
Surface area and volume of prisms, pyramids, cones (not volume) and spheres	
Draw and identify transformations and combinations of transformations	
Pythagoras' Theorem (problem or in 3D, with trigonometry)	
Trigonometric ratios (SOH CAH TOA), including in 3D	
Standard constructions using a compass (including triangles)	
Loci	
Bearings	
Congruency and congruent triangles	
Scale factors and similarity	
Circle Theorems	
Sine Rule	
Cosine Rule (find angle)	
Vectors	

Algebra	
Forming expressions, formulae and equations (then solving)	
Substitution ($v = u + at$; $s = ut + \frac{1}{2}at^2$; $v^2 = u^2 + 2as$)	
Gradient, mid-point and distance between two coordinates	
Simplify algebraic indices	
Expand single and double brackets	
n th term of a linear sequence	
Linear equations (including variable on both sides)	
Drawing graphs of linear functions	
Finding the equation of a line	
The equation of a tangent (to circle)	
Linear simultaneous equations (and graphically)	
Factorise single bracket	
Factorising quadratic expressions including where $a > 1$	
Quadratic equations (including when needs re-arrangement)	
Recognise Fibonacci and quadratic sequences	
n th term of a quadratic sequence	
Geometric Sequences	
Drawing quadratic graphs	
Rearranging Formulae (including when subject appears twice / factorising)	
Represent linear inequalities on number line and graphically	
Solve linear inequalities and represent on number line and graphically	
Represent quadratic inequalities graphically	
Solving quadratic inequalities	
The Quadratic Formula	
Completing the square and turning points	
Draw and recognise reciprocal and cubic graphs	
The equation of a circle (and graphical solution with linear equation simultaneously)	
Graphs of exponential functions and growth and decay	
Graphical solution to equations (possibly quadratic)	
Composite and inverse functions	
General iterative processes	
Algebraic fractions	
Graphs of trigonometric functions	
Translations and reflections of a graph and their functions	

Ratio, Proportion and Rates of Change	
Ratio and proportion problems	
Comparing quantities as a ratio and division of a quantity as a ratio	
Converting metric units	
Solve proportion problems	
Best buy problems	
Scale drawings	
Express one quantity as the percentage of another	
Percentage change	
Simple and compound interest and financial maths	
Compare lengths, area, volume	
Speed, density, pressure	
Direct proportion	
Non-standard real life graphs	
Reciprocal real-life graphs	
Gradient of graphs	
Distance-time and velocity-time graphs	
Area under a graph	

Probability	
Product rule	
Relative frequency	
Sampling and unbiased samples	
Venn diagrams	
Frequency trees	
Probability trees for both independent events and conditional probability	

Statistics	
Comparing data on statistical diagrams, including time series graphs	
Mean from a discrete and grouped frequency table	
Constructing and interpreting a boxplot	
Drawing a CF graph and interpreting	
Comparing distributions; median and IQR (cumulative frequency graph / box plots)	
Histograms	

Based on the questions in Edexcel GCSE Maths Paper 1 Higher (examined Thursday 25 May), we have identified topics that have not yet been assessed and are likely to come up in Paper 2 and Paper 3. Please note that the topics already assessed in Paper 1 could be assessed again, so use our list with that in mind when planning your revision. Do not focus all your revision time on these topics alone.