

Edexcel GCSE Maths Revision Checklist

Your topic-by-topic guide to exam-ready revision

1 Exam Logistics

- ☐ Confirm which tier you're entered for: Foundation (grades 1–5) or Higher (grades 4–9)
- ☐ Confirm the exam code: GCSE (9-1) Mathematics (1MA1)
- ☐ Write down the exact dates, start times and locations of Paper 1, Paper 2 and Paper 3
- ☐ Confirm what you're allowed to bring into each paper (calculator for Papers 2 and 3 only, approved equipment, no notes)
- ☐ Check whether your calculator model is approved for use in the exam
- ☐ Know how long each paper lasts (90 minutes) and how many marks it's worth (80 marks)

2 Formula Sheet — What's Given vs What to Memorise

A formula sheet is provided as an insert in every paper, for both tiers, confirmed for the lifetime of the current specification. Below is exactly what it includes, verified against the official Pearson Edexcel exam aid, so you focus memorisation only where it's genuinely needed.

Provided on the sheet (Foundation and Higher)

- ☐ Area of a trapezium = $\frac{1}{2}(a + b)h$
- ☐ Volume of a prism = area of cross section $\times$ length
- ☐ Circumference of a circle = $2\pi r = \pi d$, and area of a circle = πr^2
- ☐ Pythagoras' theorem: $a^2 + b^2 = c^2$
- ☐ Trigonometric ratios: $\sin A = a/c$, $\cos A = b/c$, $\tan A = a/b$
- ☐ Compound interest: total accrued = $P(1 + r/100)^n$
- ☐ Probability: $P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$

Provided on the sheet (Higher tier only, in addition to the above)

- ☐ The quadratic formula
- ☐ The sine rule and the cosine rule
- ☐ Area of a triangle = $\frac{1}{2}ab \sin C$
- ☐ Conditional probability: $P(A \text{ and } B) = P(A \text{ given } B) \times P(B)$

Not on the sheet — must memorise (both tiers)

- ☐ Area of a rectangle, basic triangle area ($\frac{1}{2} \times \text{base} \times \text{height}$), and parallelogram
- ☐ Volume of a cuboid, and volume and surface area of a cylinder
- ☐ Volume of a pyramid ($\frac{1}{3} \times \text{base area} \times \text{perpendicular height}$)
- ☐ The n th term of a linear sequence
- ☐ Percentage change = $(\text{new} - \text{old}) / \text{old} \times 100$
- ☐ Speed = distance / time (and the equivalent density and pressure formulas)

- ☐ Basic probability: $P(A) = \text{number of favourable outcomes} / \text{total outcomes}$

Sphere and cone volume/surface area formulas are usually printed directly inside the specific question that needs them, rather than on this sheet, so treat them as good-to-know rather than a must-memorise priority.

3 Topic Mastery Checklist

How do you know you've actually mastered a topic?

You can explain it without notes.

If you can talk someone else through the method out loud, from memory, you understand it.

You can apply it to an unfamiliar question.

Being able to answer a question you've seen before isn't the same as solving a new one testing the same skill.

You can spot it inside a multi-topic question.

Many marks are lost because a student doesn't recognise that a step needs a particular method.

You don't need the calculator to think for you.

If you rely on it to find the approach, not just the arithmetic, the method isn't secure yet.

Only tick a box once a topic passes the checks above. Topics marked (H) are Higher tier only.

Number

- ☐ Ordering integers, decimals and fractions, including negative numbers
- ☐ The four operations with whole numbers, decimals and negative numbers
- ☐ Fractions: simplifying, adding, subtracting, multiplying and dividing
- ☐ Converting between fractions, decimals and percentages
- ☐ Percentages: finding a percentage of an amount, percentage increase/decrease
- ☐ Reverse percentages and percentage change problems
- ☐ Compound interest and depreciation
- ☐ Factors, multiples, prime numbers and prime factor decomposition
- ☐ Highest common factor (HCF) and lowest common multiple (LCM)
- ☐ Rounding to significant figures and decimal places
- ☐ Estimation and approximation
- ☐ Standard form: writing numbers in and converting from standard form
- ☐ Standard form calculations (with and without a calculator)
- ☐ Indices and index laws, including negative and fractional indices (H)
- ☐ Surds: simplifying and rationalising denominators (H)
- ☐ Upper and lower bounds (H)
- ☐ Recurring decimals to fractions (H)

Algebra

- ☐ Simplifying expressions, collecting like terms
- ☐ Expanding single and double brackets
- ☐ Factorising expressions, including quadratics
- ☐ Substitution into expressions and formulae
- ☐ Rearranging formulae (changing the subject)

- ☐ Solving linear equations, including with brackets and fractions
- ☐ Solving linear simultaneous equations
- ☐ Forming and solving equations from worded problems
- ☐ Sequences: finding the n th term of linear sequences
- ☐ Quadratic sequences and n th term (H)
- ☐ Solving quadratic equations: factorising, completing the square, the formula (H)
- ☐ Solving simultaneous equations with one linear and one quadratic (H)
- ☐ Algebraic fractions: simplifying and solving (H)
- ☐ Inequalities: solving and representing on a number line
- ☐ Graphical inequalities (H)
- ☐ Functions, including composite and inverse functions (H)
- ☐ Iteration (H)
- ☐ Graphs: plotting and interpreting straight-line graphs ($y = mx + c$)
- ☐ Finding the equation of a line, including parallel and perpendicular lines (H)
- ☐ Quadratic, cubic and reciprocal graphs
- ☐ Real-life graphs, including distance-time and speed-time graphs
- ☐ Area under a graph and rate of change from a graph (H)
- ☐ Transformations of graphs: translations, reflections (H)

Ratio, Proportion and Rates of Change

- ☐ Simplifying and using ratios
- ☐ Sharing an amount in a given ratio
- ☐ Converting between units (metric and imperial, where relevant)
- ☐ Direct proportion problems
- ☐ Inverse proportion problems
- ☐ Best buy and value-for-money problems
- ☐ Compound measures: speed, density and pressure
- ☐ Growth and decay problems (H)
- ☐ Direct and inverse proportion using algebraic formulae (H)

Geometry and Measures

- ☐ Angle rules: angles on a line, around a point, in triangles and polygons
- ☐ Angles in parallel lines (alternate, corresponding, co-interior)
- ☐ Properties of 2D shapes and quadrilaterals
- ☐ Perimeter and area of basic shapes, including compound shapes
- ☐ Circles: circumference and area
- ☐ Area and circumference of sectors and arcs (H)
- ☐ Volume and surface area of prisms, cylinders, cones and spheres
- ☐ Pythagoras' theorem in 2D
- ☐ Pythagoras' theorem in 3D (H)
- ☐ Trigonometry (SOHCAHTOA) in right-angled triangles
- ☐ The sine rule, cosine rule and area of a triangle – $\frac{1}{2}ab \sin C$ (H)

- ☐ Trigonometry in 3D (H)
- ☐ Congruence and similarity, including similar shape ratios
- ☐ Transformations: translation, rotation, reflection and enlargement
- ☐ Enlargement with negative and fractional scale factors (H)
- ☐ Vectors: basic vector arithmetic and geometric proof (H)
- ☐ Loci and constructions, including bearings
- ☐ Circle theorems (H)

Probability

- ☐ Basic probability: single events and the probability scale
- ☐ Relative frequency and experimental probability
- ☐ Listing outcomes and sample space diagrams
- ☐ Venn diagrams and set notation
- ☐ Two-way tables
- ☐ Combined events and the product rule for counting
- ☐ Probability trees for independent events
- ☐ Probability trees for dependent/conditional events (H)
- ☐ Frequency trees

Statistics

- ☐ Collecting and organising data, including sampling methods
- ☐ Bar charts, pictograms and pie charts
- ☐ Frequency tables and grouped frequency tables
- ☐ Calculating mean, median, mode and range from a list and from a table
- ☐ Estimating the mean from grouped data
- ☐ Scatter graphs, correlation and lines of best fit
- ☐ Time series graphs
- ☐ Histograms and frequency density (H)
- ☐ Cumulative frequency graphs and finding the median/quartiles (H)
- ☐ Box plots and interquartile range (H)
- ☐ Comparing distributions using measures of spread and averages

4 Exam Technique

- ☐ Can explain, out loud, how method marks are awarded even when a final answer is wrong
 - ☐ Have practised showing full working on every question, not just the final answer
 - ☐ Have timed at least one full past paper under genuine exam conditions
 - ☐ Know roughly how long to spend per mark (around 1.5 minutes per mark, as a rough guide)
 - ☐ Have practised breaking down a multi-topic 'back question' into its separate parts before solving it
 - ☐ Have a system for flagging and returning to questions you get stuck on, rather than losing time on one question
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5 Error Tracking — Know Your Weak Spots

Rather than guessing which topics need more work, log it properly after every past paper, then review the pattern every two weeks.

Paper / Date	Topic	Mistake Type	Action Taken

6 Final Two Weeks Before the Exam

- ☐ Have sat at least one full timed paper per week in this period
- ☐ Have reviewed the formula sheet and your 'must memorise' list one final time
- ☐ Have reviewed your error log and confirmed previously weak topics have genuinely improved
- ☐ Have prioritised sleep, meals and short breaks over last-minute cramming
- ☐ Have confirmed exam logistics again (location, time, equipment, calculator)

7 On Exam Day

- ☐ Arrive with your approved calculator (Papers 2 and 3), spare batteries, pens, pencil, ruler and protractor
- ☐ Read each question fully before starting to answer it
- ☐ Show full working on every question, even ones you find easy
- ☐ Keep an eye on timing without letting it cause panic — use your 1.5-minutes-per-mark guide
- ☐ Leave a few minutes at the end of each paper to check your working, particularly calculator entry errors

Want extra support with Edexcel GCSE Maths?

A tutor can help you close specific topic gaps faster than revising alone, and build the exam technique that past papers alone can't always teach.

Browse Edexcel GCSE Maths tutors on FindTutors, it's free to look, compare and get in touch.

This checklist is for general revision guidance only, based on the Edexcel GCSE (9-1) Mathematics (1MA1) specification and the official Pearson Edexcel exam aid for the current series. Formula sheet provision can be reviewed by Ofqual between series, so always double-check the exact current-year exam aid PDF on the Pearson Edexcel qualifications website before relying on it.