FREE REVISION CHECKLIST

Edexcel IGCSE Maths Revision Checklist

Pearson Edexcel International GCSE Mathematics A (4MA1) · Foundation and Higher Tier

NUMBER · ALGEBRA · GRAPHS · GEOMETRY · VECTORS · STATISTICS

EXAM BOARD	Pearson Edexcel International GCSE Mathematics A
COURSE CODE	4MA1
TIERS	Foundation (grades 1–5) and Higher (grades 4–9)
PAPERS	Foundation Tier: Paper 1F and Paper 2F · Higher Tier: Paper 1H and Paper 2H
TOPICS	63 topics in six units (37 for every student, 26 Higher only)
FORMULAE	A formulae sheet is printed in every paper

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YOUR EXAM

THE EXAM AT A GLANCE

Everything in this checklist is in the Pearson Edexcel International GCSE Mathematics A (4MA1) specification (the official list of topics). Foundation students sit Papers 1F and 2F. Higher students sit Papers 1H and 2H. There is no non-calculator paper.

FOUNDATION TIER · GRADES 1–5

PAPER 1F	PAPER 2F
Calculator 2h · 100 marks	**Calculator** 2h · 100 marks

HIGHER TIER · GRADES 4–9

PAPER 1H	PAPER 2H
Calculator 2h · 100 marks	**Calculator** 2h · 100 marks

Each paper is worth half of the final grade, and a calculator is allowed in both. A formulae sheet is printed in every paper.

THE SIX UNITS

Numbers and the Number System
15 topics · 4 Higher only

Equations, Formulae and Identities
14 topics · 7 Higher only

Sequences, Functions and Graphs
10 topics · 6 Higher only

Geometry and Trigonometry
15 topics · 5 Higher only

Vectors and Transformation Geometry
2 topics · 1 Higher only

Statistics and Probability
7 topics · 3 Higher only

HOW TO USE THIS CHECKLIST

1 — Tick One Box
For each topic, tick Not Yet, Nearly or Confident. Be honest!

2 — Start With Not Yet
Revise the Not Yet topics first, then move on to the Nearly ones.

3 — Use the Grades
Lower-grade topics come first in each unit. Secure them before harder ones.

4 — Repeat Monthly
Fill it in again every month and watch the Confident column grow.

☐ Not Yet ☐ Nearly ☐ Confident · All Foundation and Higher · Higher Higher only

Grade colours: Grades 1–3 · Grades 4–5 · Grades 6–7 · Grades 8–9

The number next to each topic is the grade it usually appears at in the exam. It is a guide, not an official exam board grading.

Numbers and the Number System

15 topics · 4 Higher only

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
1	**Integers** Place value, factors, multiples, primes, HCF, LCM and prime factors	All	2	☐	☐	☐
2	**Fractions and Decimals** Calculating with fractions and decimals, and converting between them	All	2	☐	☐	☐
3	**Powers and Roots** Squares, cubes, roots and the laws of indices	All	3	☐	☐	☐
4	**Rounding and Estimation** Decimal places, significant figures and estimating answers	All	3	☐	☐	☐
5	**Applying Number** Money, time, units, conversions and using a calculator	All	3	☐	☐	☐
6	**Percentages** Percentage increase and decrease, percentage change and compound interest	All	4	☐	☐	☐
7	**Ratio and Proportion** Sharing in a ratio and solving proportion problems	All	4	☐	☐	☐
8	**Standard Form** Writing and calculating with numbers in standard form	All	4	☐	☐	☐
9	**Set Language and Notation** Venn diagrams and notation such as ∈, ∪, ∩ and the universal set	All	4	☐	☐	☐
10	**Upper and Lower Bounds** Bounds of rounded measurements	All	5	☐	☐	☐
11	**Reverse Percentages** Finding the original amount before a percentage change	All	5	☐	☐	☐
12	**Fractional Indices** Evaluating powers with fractional and negative indices	Higher	7	☐	☐	☐
13	**Recurring Decimals** Converting recurring decimals to fractions	Higher	7	☐	☐	☐
14	**Bounds in Calculations** Upper and lower bounds of answers to calculations	Higher	7	☐	☐	☐
15	**Surds** Simplifying surds and rationalising the denominator	Higher	7	☐	☐	☐

Equations, Formulae and Identities

14 topics · 7 Higher only

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
16	**Algebraic Notation** Simplifying expressions and collecting like terms	All	2	☐	☐	☐

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
17	**Substitution and Formulae** Substituting into formulae and changing the subject	All	4	☐	☐	☐
18	**Expanding and Factorising** Single and double brackets, and factorising $x^2 + bx + c$	All	4	☐	☐	☐
19	**Linear Equations** Solving linear equations, including with brackets and fractions	All	4	☐	☐	☐
20	**Linear Inequalities** Solving inequalities and showing them on a number line	All	4	☐	☐	☐
21	**Simultaneous Linear Equations** Solving a pair of linear equations	All	5	☐	☐	☐
22	**Quadratic Equations by Factorising** Solving quadratic equations that factorise	All	5	☐	☐	☐
23	**Quadratic Formula and Completing the Square** Solving any quadratic equation	Higher	6	☐	☐	☐
24	**Harder Factorising** Factorising $ax^2 + bx + c$ and the difference of two squares	Higher	6	☐	☐	☐
25	**Proportion** Forming equations for direct and inverse proportion	Higher	7	☐	☐	☐
26	**Algebraic Fractions** Simplifying and solving equations with algebraic fractions	Higher	7	☐	☐	☐
27	**Simultaneous Equations With a Quadratic** Solving a linear and a quadratic equation together	Higher	7	☐	☐	☐
28	**Quadratic Inequalities and Regions** Solving quadratic inequalities and showing regions on a graph	Higher	8	☐	☐	☐
29	**Algebraic Proof** Using algebra to prove a statement	Higher	7	☐	☐	☐

Sequences, Functions and Graphs

10 topics · 6 Higher only

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
30	**Sequences and the nth Term** Continuing sequences and finding the nth term of a linear sequence	All	3	☐	☐	☐
31	**Straight-Line Graphs** Plotting lines, gradient, y = mx + c and parallel lines	All	4	☐	☐	☐
32	**Real-Life Graphs** Distance-time, speed-time and conversion graphs	All	4	☐	☐	☐
33	**Quadratic Graphs** Plotting quadratic graphs and solving equations from them	All	5	☐	☐	☐

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
34	**Arithmetic Series** The nth term and sum of an arithmetic series	Higher	7	☐	☐	☐
35	**Function Notation** Using f(x), domain and range, composite and inverse functions	Higher	7	☐	☐	☐
36	**Cubic, Reciprocal and Other Graphs** Recognising and plotting other graphs and using them to solve equations	Higher	6	☐	☐	☐
37	**Perpendicular Lines** Gradients and equations of perpendicular lines	Higher	7	☐	☐	☐
38	**Graph Transformations** Translations, stretches and reflections of y = f(x)	Higher	8	☐	☐	☐
39	**Differentiation** Differentiating ax^n, gradients, turning points and rates of change in kinematics	Higher	8	☐	☐	☐

Geometry and Trigonometry

15 topics · 5 Higher only

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
40	**Angles, Lines and Triangles** Angle facts and angles in parallel lines	All	3	☐	☐	☐
41	**Polygons** Interior and exterior angles of polygons	All	4	☐	☐	☐
42	**Symmetry** Line and rotational symmetry	All	2	☐	☐	☐
43	**Measures** Units, compound measures such as speed and density, and scale drawings	All	4	☐	☐	☐
44	**Constructions** Constructing triangles, bisectors and perpendiculars	All	5	☐	☐	☐
45	**Perimeter, Area and Circles** Area of 2D shapes, circles, arcs and sectors	All	5	☐	☐	☐
46	**Volume and Surface Area** Prisms and cylinders	All	5	☐	☐	☐
47	**Pythagoras' Theorem and Trigonometry** Right-angled triangles, including bearings	All	5	☐	☐	☐
48	**Similar Shapes** Finding missing lengths in similar shapes	All	5	☐	☐	☐
49	**Circle Properties** Tangents, chords and angles in a semicircle	All	5	☐	☐	☐
50	**Spheres, Cones and Pyramids** Volume and surface area of spheres, cones and pyramids	Higher	6	☐	☐	☐

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
51	**Circle Theorems** Applying the full set of circle theorems with reasons	Higher	7	☐	☐	☐
52	**Sine Rule, Cosine Rule and Area** Non-right-angled triangles, including ½ab sin C	Higher	7	☐	☐	☐
53	**3D Trigonometry** Lengths and angles in 3D shapes	Higher	8	☐	☐	☐
54	**Similar Areas and Volumes** Using area and volume scale factors	Higher	7	☐	☐	☐

Vectors and Transformation Geometry

2 topics · 1 Higher only

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
55	**Transformations** Reflection, rotation, translation and enlargement	All	4	☐	☐	☐
56	**Vectors** Vector notation, adding and subtracting, magnitude and vector geometry	Higher	8	☐	☐	☐

Statistics and Probability

7 topics · 3 Higher only

NO.	TOPIC AND WHAT IT INCLUDES	TIER	GRADE	NOT YET	NEARLY	CONFIDENT
57	**Charts and Graphs** Bar charts, pie charts, pictograms and two-way tables	All	2	☐	☐	☐
58	**Averages and Range** Mean, median, mode and range, including from frequency tables	All	3	☐	☐	☐
59	**Probability** Basic probability, relative frequency and sample spaces	All	3	☐	☐	☐
60	**Combined Events** Tree diagrams and probabilities of combined events	All	5	☐	☐	☐
61	**Cumulative Frequency** Cumulative frequency diagrams, quartiles and interquartile range	Higher	6	☐	☐	☐
62	**Histograms** Drawing and interpreting histograms	Higher	7	☐	☐	☐
63	**Conditional Probability** Dependent events and conditional probability	Higher	7	☐	☐	☐

TRACK YOUR PROGRESS

MY PROGRESS SUMMARY

Count your ticks for each unit and write them in. Fill this in again every month to see how far you've come.

UNIT	TOPICS	NOT YET	NEARLY	CONFIDENT
Numbers and the Number System	15			
Equations, Formulae and Identities	14			
Sequences, Functions and Graphs	10			
Geometry and Trigonometry	15			
Vectors and Transformation Geometry	2			
Statistics and Probability	7			
Total	**63**			

REVISION TIPS THAT WORK

Little and Often

20 to 30 minutes of maths on most days beats one long session at the weekend.

Practise, Don't Just Read

Do exam-style questions. Reading notes feels useful, but solving questions is what builds marks.

Learn From Mistakes

Keep a list of questions you got wrong and try them again a week later.

Master Your Calculator

Both papers allow a calculator, so learn every function on yours, including standard form and trigonometry.

Want a Plan Built Around This Checklist?

Book a free 90-minute lesson. I'll find exactly where your child is and write a personal plan for every topic they need.

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