

# GCSE ONLINE TUTORING

IN PARTNERSHIP WITH RS REMOTE TUTORING

PEARSON EDEXCEL GCSE (9-1) MATHEMATICS 1MA1

## 1MA1 MASTER SPECIFICATION REFERENCE & REVISION AUDIT

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Foundation + Higher | all N/A/R/G/P/S references | assessment structure and tier mapping

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## How to use this document

A detailed student/tutor reference that converts the Pearson 1MA1 specification into auditable revision outcomes. Use the reference code to trace each skill back to Pearson, then use the checks to judge whether the topic is genuinely secure.

| Section    | What it gives you                                                                                            |
|------------|--------------------------------------------------------------------------------------------------------------|
| Part 1     | Paper structure, topic weightings and assessment objectives.                                                 |
| Part 2     | Reference-by-reference content audit for Number, Algebra, Ratio/Rates, Geometry, Probability and Statistics. |
| Part 3     | Revision planning and tier-transition checks.                                                                |
| References | Direct Pearson specification sources.                                                                        |

Reference tags such as [SPEC], [GB-2026] and [ER24H1] are defined in the source register so the factual basis can be audited.

## Part 1 - Qualification and assessment structure

Pearson Edexcel GCSE Mathematics (1MA1) is linear. Students sit three 80-mark papers at one tier in the same series: Paper 1 is non-calculator; Papers 2 and 3 permit a calculator. Each paper lasts 1 hour 30 minutes and contributes one third of the qualification. Foundation awards grades 1-5. Higher awards grades 4-9, with grade 3 available as a safety-net outcome.

Pearson publishes topic-area weighting ranges rather than a fixed percentage for every paper. Foundation places more weight on Number and Ratio/Proportion/Rates; Higher places more weight on Algebra and Geometry/Measures.

| Tier       | Number | Algebra | Ratio / rates | Geometry | Statistics + probability |
|------------|--------|---------|---------------|----------|--------------------------|
| Foundation | 22-28% | 17-23%  | 22-28%        | 12-18%   | 12-18%                   |
| Higher     | 12-18% | 27-33%  | 17-23%        | 17-23%   | 12-18%                   |

## Assessment objectives

### Foundation

**AO1 - standard techniques:** 50%

**AO2 - reason, interpret and communicate:** 25%

**AO3 - solve problems in mathematics and other contexts:** 25%

**Revision implication:** Half the paper is not simply recall: show reasoning, communicate conclusions and practise selecting methods from unfamiliar contexts.

Source: [SPEC]

## Higher

**AO1 - standard techniques:** 40%

**AO2 - reason, interpret and communicate:** 30%

**AO3 - solve problems in mathematics and other contexts:** 30%

**Revision implication:** Higher gives 60% of marks to reasoning/problem solving. Fluency is necessary but not sufficient.

*Source: [SPEC]*

## Part 2 - Detailed content reference

### Number

16 Pearson/DfE reference codes are audited here. The requirement text is independently paraphrased; the official code is retained.

#### N1 | Order positive/negative integers, decimals and fractions

**Pearson reference:** N1

**Foundation outcome:** Order positive/negative integers, decimals and fractions; use equality and inequality symbols and number lines

**Higher / extension outcome:** Same core skill; apply fluently in multi-step contexts

**What secure performance looks like:** You can recognise when order positive/negative integers, decimals and fractions is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

#### N2 | Use four operations with integers, decimals, fractions and mixed numbers

**Pearson reference:** N2

**Foundation outcome:** Use four operations with integers, decimals, fractions and mixed numbers; place value; financial vocabulary

**Higher / extension outcome:** Same core skill at greater complexity

**What secure performance looks like:** You can recognise when use four operations with integers, decimals, fractions and mixed numbers is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N3 | Use inverse operations and correct order of operations, including powers, roots and r

**Pearson reference:** N3

**Foundation outcome:** Use inverse operations and correct order of operations, including powers, roots and reciprocals

**Higher / extension outcome:** Same core skill at greater algebraic complexity

**What secure performance looks like:** You can recognise when use inverse operations and correct order of operations, including powers, roots and r is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N4 | Prime numbers

**Pearson reference:** N4

**Foundation outcome:** Prime numbers; factors/multiples; HCF/LCM; prime-factor decomposition in index form

**Higher / extension outcome:** Same core skill in harder problem solving

**What secure performance looks like:** You can recognise when prime numbers is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N5 | Systematic listing using lists, tables or diagrams

**Pearson reference:** N5

**Foundation outcome:** Systematic listing using lists, tables or diagrams

**Higher / extension outcome:** Use product rule for counting

**What secure performance looks like:** You can recognise when systematic listing using lists, tables or diagrams is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## N6 | Positive integer powers and roots

**Pearson reference:** N6

**Foundation outcome:** Positive integer powers and roots; recognise common powers

**Higher / extension outcome:** Estimate powers and roots of positive numbers

**What secure performance looks like:** You can recognise when positive integer powers and roots is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## N7 | Calculate with roots and integer indices

**Pearson reference:** N7

**Foundation outcome:** Calculate with roots and integer indices

**Higher / extension outcome:** Calculate with fractional indices

**What secure performance looks like:** You can recognise when calculate with roots and integer indices is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N8 | Exact fractions and exact multiples of $\pi$

**Pearson reference:** N8

**Foundation outcome:** Exact fractions and exact multiples of  $\pi$

**Higher / extension outcome:** Exact surd calculation, simplification and rationalising denominators

**What secure performance looks like:** You can recognise when exact fractions and exact multiples of  $\pi$  is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N9 | Calculate with and interpret standard form $A \times 10^n$ , with/without calculator

**Pearson reference:** N9

**Foundation outcome:** Calculate with and interpret standard form  $A \times 10^n$ , with/without calculator

**Higher / extension outcome:** Same skill in demanding calculations

**What secure performance looks like:** You can recognise when calculate with and interpret standard form  $a \times 10^n$ , with/without calculator is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N10 | Convert between terminating decimals and fractions

**Pearson reference:** N10

**Foundation outcome:** Convert between terminating decimals and fractions

**Higher / extension outcome:** Convert recurring decimals to fractions and vice versa

**What secure performance looks like:** You can recognise when convert between terminating decimals and fractions is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N11 | Use fractions in ratio problems

**Pearson reference:** N11

**Foundation outcome:** Use fractions in ratio problems

**Higher / extension outcome:** Same core skill

**What secure performance looks like:** You can recognise when use fractions in ratio problems is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N12 | Use fractions and percentages as operators

**Pearson reference:** N12

**Foundation outcome:** Use fractions and percentages as operators; percentage multipliers

**Higher / extension outcome:** Same core skill in multi-step contexts

**What secure performance looks like:** You can recognise when use fractions and percentages as operators is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## N13 | Use standard units and metric conversions for length, area, volume/capacity, mass, ti

**Pearson reference:** N13

**Foundation outcome:** Use standard units and metric conversions for length, area, volume/capacity, mass, time and money

**Higher / extension outcome:** Same core skill plus demanding compound-measure contexts

**What secure performance looks like:** You can recognise when use standard units and metric conversions for length, area, volume/capacity, mass, ti is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## N14 | Estimate answers and check reasonableness using approximation

**Pearson reference:** N14

**Foundation outcome:** Estimate answers and check reasonableness using approximation

**Higher / extension outcome:** Same skill in complex problems

**What secure performance looks like:** You can recognise when estimate answers and check reasonableness using approximation is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## N15 | Round to decimal places/significant figures

**Pearson reference:** N15

**Foundation outcome:** Round to decimal places/significant figures; use simple error intervals from rounding/truncation

**Higher / extension outcome:** Use error intervals confidently in multi-stage problems

**What secure performance looks like:** You can recognise when round to decimal places/significant figures is

required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## N16 | Apply and interpret limits of accuracy

**Pearson reference:** N16

**Foundation outcome:** Apply and interpret limits of accuracy

**Higher / extension outcome:** Upper/lower bounds and calculations with bounds

**What secure performance looks like:** You can recognise when apply and interpret limits of accuracy is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I do a non-calculator version?

**Self-audit 2:** Can I estimate/check magnitude and sign?

**Self-audit 3:** Have I handled units and accuracy correctly?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

# Algebra

25 Pearson/DfE reference codes are audited here. The requirement text is independently paraphrased; the official code is retained.

## A1 | Use algebraic notation correctly: products, powers, fractions, coefficients and brack

**Pearson reference:** A1

**Foundation outcome:** Use algebraic notation correctly: products, powers, fractions, coefficients and brackets

**Higher / extension outcome:** Same notation fluently in complex expressions

**What secure performance looks like:** You can recognise when use algebraic notation correctly: products, powers, fractions, coefficients and brack is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A2 | Substitute numerical values into expressions and formulae

**Pearson reference:** A2

**Foundation outcome:** Substitute numerical values into expressions and formulae

**Higher / extension outcome:** Same skill with more complex/scientific formulae

**What secure performance looks like:** You can recognise when substitute numerical values into expressions and formulae is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A3 | Understand expression, equation, formula, inequality, term and factor

**Pearson reference:** A3

**Foundation outcome:** Understand expression, equation, formula, inequality, term and factor

**Higher / extension outcome:** Also understand and use identities

**What secure performance looks like:** You can recognise when understand expression, equation, formula, inequality, term and factor is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A4 | Collect like terms

**Pearson reference:** A4

**Foundation outcome:** Collect like terms; expand a single bracket; factor common factors; use index laws; expand two binomials; factor simple quadratics/difference of squares

**Higher / extension outcome:** Manipulate surds/algebraic fractions; expand multiple binomials; factor  $ax^2+bx+c$

**What secure performance looks like:** You can recognise when collect like terms is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A5 | Use standard formulae and rearrange formulae to change subject

**Pearson reference:** A5

**Foundation outcome:** Use standard formulae and rearrange formulae to change subject

**Higher / extension outcome:** Same skill with demanding rearrangements

**What secure performance looks like:** You can recognise when use standard formulae and rearrange formulae to change subject is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A6 | Know equation vs identity

**Pearson reference:** A6

**Foundation outcome:** Know equation vs identity; construct algebraic arguments

**Higher / extension outcome:** Construct formal algebraic proofs

**What secure performance looks like:** You can recognise when know equation vs identity is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A7 | Interpret simple expressions as input-output functions

**Pearson reference:** A7

**Foundation outcome:** Interpret simple expressions as input-output functions

**Higher / extension outcome:** Use inverse/composite functions and  $f(x)$ ,  $fg(x)$ ,  $f^{-1}(x)$

**What secure performance looks like:** You can recognise when interpret simple expressions as input-output functions is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A8 | Coordinates in all four quadrants

**Pearson reference:** A8

**Foundation outcome:** Coordinates in all four quadrants

**Higher / extension outcome:** Same skill in graph/geometry problems

**What secure performance looks like:** You can recognise when coordinates in all four quadrants is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A9 | Plot straight-line graphs

**Pearson reference:** A9

**Foundation outcome:** Plot straight-line graphs; use  $y=mx+c$ ; parallel lines; line through points/given gradient

**Higher / extension outcome:** Identify perpendicular lines using gradients

**What secure performance looks like:** You can recognise when plot straight-line graphs is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A10 | Interpret gradient and intercept graphically and algebraically

**Pearson reference:** A10

**Foundation outcome:** Interpret gradient and intercept graphically and algebraically

**Higher / extension outcome:** Same, including complex contexts

**What secure performance looks like:** You can recognise when interpret gradient and intercept graphically and algebraically is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A11 | Read roots/intercepts/turning points of quadratics

**Pearson reference:** A11

**Foundation outcome:** Read roots/intercepts/turning points of quadratics; deduce roots algebraically

**Higher / extension outcome:** Deduce turning points by completing the square

**What secure performance looks like:** You can recognise when read roots/intercepts/turning points of quadratics is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A12 | Recognise/sketch linear, quadratic, simple cubic and reciprocal graphs

**Pearson reference:** A12

**Foundation outcome:** Recognise/sketch linear, quadratic, simple cubic and reciprocal graphs

**Higher / extension outcome:** Also exponential and trigonometric function graphs for angles of any size

**What secure performance looks like:** You can recognise when recognise/sketch linear, quadratic, simple cubic and reciprocal graphs is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A13 | Sketch translations and reflections of functions

**Pearson reference:** A13

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Sketch translations and reflections of functions

**What secure performance looks like:** You can recognise when sketch translations and reflections of functions is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A14 | Plot/interpret real-context graphs and find approximate solutions

**Pearson reference:** A14

**Foundation outcome:** Plot/interpret real-context graphs and find approximate solutions

**Higher / extension outcome:** Include reciprocal and exponential graph contexts

**What secure performance looks like:** You can recognise when plot/interpret real-context graphs and find approximate solutions is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A15 | Estimate gradients and areas under non-linear graphs

**Pearson reference:** A15

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Estimate gradients and areas under non-linear graphs; interpret distance/speed/financial contexts

**What secure performance looks like:** You can recognise when estimate gradients and areas under non-linear graphs is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A16 | Equation of circle centred at origin

**Pearson reference:** A16

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Equation of circle centred at origin; equation of tangent at a point

**What secure performance looks like:** You can recognise when equation of circle centred at origin is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A17 | Solve linear equations

**Pearson reference:** A17

**Foundation outcome:** Solve linear equations; approximate graphical solutions; unknowns both sides

**Higher / extension outcome:** Same with more demanding algebra

**What secure performance looks like:** You can recognise when solve linear equations is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A18 | Solve quadratics by factorising

**Pearson reference:** A18

**Foundation outcome:** Solve quadratics by factorising; approximate graphically

**Higher / extension outcome:** Also rearrange, complete square and use quadratic formula

**What secure performance looks like:** You can recognise when solve quadratics by factorising is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A19 | Solve two linear simultaneous equations algebraically/graphically

**Pearson reference:** A19

**Foundation outcome:** Solve two linear simultaneous equations algebraically/graphically

**Higher / extension outcome:** Also linear/quadratic simultaneous equations

**What secure performance looks like:** You can recognise when solve two linear simultaneous equations algebraically/graphically is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step

example before marking this reference secure.

Source: [SPEC]

## A20 | Find approximate solutions numerically using iteration

**Pearson reference:** A20

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Find approximate solutions numerically using iteration

**What secure performance looks like:** You can recognise when find approximate solutions numerically using iteration is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A21 | Translate contexts into expressions/formulae/equations

**Pearson reference:** A21

**Foundation outcome:** Translate contexts into expressions/formulae/equations; solve and interpret

**Higher / extension outcome:** Same skill in demanding geometrical/contextual problems

**What secure performance looks like:** You can recognise when translate contexts into expressions/formulae/equations is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## A22 | Solve linear inequalities in one variable and show on number line

**Pearson reference:** A22

**Foundation outcome:** Solve linear inequalities in one variable and show on number line

**Higher / extension outcome:** Solve linear inequalities in one/two variables and quadratic inequalities; set

notation/graphs

**What secure performance looks like:** You can recognise when solve linear inequalities in one variable and show on number line is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A23 | Generate sequence terms from term-to-term or position-to-term rules

**Pearson reference:** A23

**Foundation outcome:** Generate sequence terms from term-to-term or position-to-term rules

**Higher / extension outcome:** Same in complex patterns

**What secure performance looks like:** You can recognise when generate sequence terms from term-to-term or position-to-term rules is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## A24 | Recognise triangular/square/cube numbers and arithmetic sequences

**Pearson reference:** A24

**Foundation outcome:** Recognise triangular/square/cube numbers and arithmetic sequences; Fibonacci-type, quadratic and simple geometric progressions

**Higher / extension outcome:** Geometric sequences including surd ratios and other sequences

**What secure performance looks like:** You can recognise when recognise triangular/square/cube numbers and arithmetic sequences is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step

example before marking this reference secure.

Source: [SPEC]

## A25 | Find nth term of linear sequences

**Pearson reference:** A25

**Foundation outcome:** Find nth term of linear sequences

**Higher / extension outcome:** Find nth term of quadratic sequences

**What secure performance looks like:** You can recognise when find nth term of linear sequences is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Can I show algebra line by line without changing equality?

**Self-audit 2:** Can I substitute back or use a second method to verify?

**Self-audit 3:** Can I recognise the skill inside a context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## Ratio, proportion and rates of change

16 Pearson/DfE reference codes are audited here. The requirement text is independently paraphrased; the official code is retained.

### R1 | Convert standard and compound units in numerical contexts

**Pearson reference:** R1

**Foundation outcome:** Convert standard and compound units in numerical contexts

**Higher / extension outcome:** Use density/pressure and compound units in numerical/algebraic contexts

**What secure performance looks like:** You can recognise when convert standard and compound units in numerical contexts is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

### R2 | Use scale factors, scale diagrams and maps

**Pearson reference:** R2

**Foundation outcome:** Use scale factors, scale diagrams and maps

**Higher / extension outcome:** Same with complex geometric reasoning

**What secure performance looks like:** You can recognise when use scale factors, scale diagrams and maps is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

### R3 | Express one quantity as a fraction of another

**Pearson reference:** R3

**Foundation outcome:** Express one quantity as a fraction of another

**Higher / extension outcome:** Same in multi-step contexts

**What secure performance looks like:** You can recognise when express one quantity as a fraction of another is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

### R4 | Use and simplify ratio notation

**Pearson reference:** R4

**Foundation outcome:** Use and simplify ratio notation

**Higher / extension outcome:** Same in demanding contexts

**What secure performance looks like:** You can recognise when use and simplify ratio notation is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## R5 | Share quantities in ratios

**Pearson reference:** R5

**Foundation outcome:** Share quantities in ratios; part:part and part:whole; best buy, mixtures, concentrations

**Higher / extension outcome:** Same with multi-stage reasoning

**What secure performance looks like:** You can recognise when share quantities in ratios is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## R6 | Express multiplicative relationships as ratio or fraction

**Pearson reference:** R6

**Foundation outcome:** Express multiplicative relationships as ratio or fraction

**Higher / extension outcome:** Same in algebraic contexts

**What secure performance looks like:** You can recognise when express multiplicative relationships as ratio or fraction is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## R7 | Use proportion as equality of ratios

**Pearson reference:** R7

**Foundation outcome:** Use proportion as equality of ratios

**Higher / extension outcome:** Same with algebraic modelling

**What secure performance looks like:** You can recognise when use proportion as equality of ratios is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## R8 | Connect ratios, fractions and linear functions

**Pearson reference:** R8

**Foundation outcome:** Connect ratios, fractions and linear functions

**Higher / extension outcome:** Same with modelling

**What secure performance looks like:** You can recognise when connect ratios, fractions and linear functions is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## R9 | Percentages, percentage change, reverse percentages and simple interest

**Pearson reference:** R9

**Foundation outcome:** Percentages, percentage change, reverse percentages and simple interest

**Higher / extension outcome:** Same plus complex multi-step financial problems

**What secure performance looks like:** You can recognise when percentages, percentage change, reverse percentages and simple interest is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## R10 | Direct/inverse proportion using numerical, graphical and algebraic

## representations

**Pearson reference:** R10

**Foundation outcome:** Direct/inverse proportion using numerical, graphical and algebraic representations

**Higher / extension outcome:** Same with demanding algebra

**What secure performance looks like:** You can recognise when direct/inverse proportion using numerical, graphical and algebraic representations is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## R11 | Compound units: speed, pay rates, unit prices

**Pearson reference:** R11

**Foundation outcome:** Compound units: speed, pay rates, unit prices; density and pressure

**Higher / extension outcome:** Same with rearrangement and comparison

**What secure performance looks like:** You can recognise when compound units: speed, pay rates, unit prices is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## R12 | Compare lengths/areas/volumes using ratios and scale factors

**Pearson reference:** R12

**Foundation outcome:** Compare lengths/areas/volumes using ratios and scale factors

**Higher / extension outcome:** Connect to similarity and trigonometric ratios

**What secure performance looks like:** You can recognise when compare lengths/areas/volumes using ratios and scale factors is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## R13 | Interpret direct/inverse proportion equations

**Pearson reference:** R13

**Foundation outcome:** Interpret direct/inverse proportion equations

**Higher / extension outcome:** Construct and interpret direct/inverse proportion equations

**What secure performance looks like:** You can recognise when interpret direct/inverse proportion equations is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## R14 | Interpret gradient as rate of change

**Pearson reference:** R14

**Foundation outcome:** Interpret gradient as rate of change; recognise direct/inverse proportion graphs

**Higher / extension outcome:** Same in demanding contexts

**What secure performance looks like:** You can recognise when interpret gradient as rate of change is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## R15 | Instantaneous rate of change

**Pearson reference:** R15

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Instantaneous rate of change; gradients of tangents/chords

**What secure performance looks like:** You can recognise when instantaneous rate of change is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## R16 | Growth/decay including compound interest

**Pearson reference:** R16

**Foundation outcome:** Growth/decay including compound interest

**Higher / extension outcome:** General iterative processes

**What secure performance looks like:** You can recognise when growth/decay including compound interest is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is multiplicative here?

**Self-audit 2:** Can I identify a constant of proportionality or unit rate?

**Self-audit 3:** Have I interpreted the result in context?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

# Geometry and measures

25 Pearson/DfE reference codes are audited here. The requirement text is independently paraphrased; the official code is retained.

## G1 | Use standard geometry terminology/notation

**Pearson reference:** G1

**Foundation outcome:** Use standard geometry terminology/notation; label triangles; draw diagrams from descriptions

**Higher / extension outcome:** Same terminology in proofs

**What secure performance looks like:** You can recognise when use standard geometry terminology/notation is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G2 | Ruler/compass constructions

**Pearson reference:** G2

**Foundation outcome:** Ruler/compass constructions; loci; perpendicular distance

**Higher / extension outcome:** Same in compound constructions

**What secure performance looks like:** You can recognise when ruler/compass constructions is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G3 | Angles at point/straight line/vertically opposite/parallel lines

**Pearson reference:** G3

**Foundation outcome:** Angles at point/straight line/vertically opposite/parallel lines; triangle/polygon angle sums

**Higher / extension outcome:** Use facts fluently in multi-step proofs

**What secure performance looks like:** You can recognise when angles at point/straight line/vertically opposite/parallel lines is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G4 | Properties of quadrilaterals, triangles and common polygons

**Pearson reference:** G4

**Foundation outcome:** Properties of quadrilaterals, triangles and common polygons

**Higher / extension outcome:** Use properties in proof/problem solving

**What secure performance looks like:** You can recognise when properties of quadrilaterals, triangles and common polygons is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G5 | Triangle congruence: SSS, SAS, ASA, RHS

**Pearson reference:** G5

**Foundation outcome:** Triangle congruence: SSS, SAS, ASA, RHS

**Higher / extension outcome:** Apply congruence in proofs

**What secure performance looks like:** You can recognise when triangle congruence: sss, sas, asa, rhs is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G6 | Use angle facts, congruence, similarity and quadrilateral properties to derive result

**Pearson reference:** G6

**Foundation outcome:** Use angle facts, congruence, similarity and quadrilateral properties to derive results and simple proofs

**Higher / extension outcome:** More formal geometric proof

**What secure performance looks like:** You can recognise when use angle facts, congruence, similarity and quadrilateral properties to derive result is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step

example before marking this reference secure.

Source: [SPEC]

## G7 | Rotation/reflection/translation/enlargement

**Pearson reference:** G7

**Foundation outcome:** Rotation/reflection/translation/enlargement; fractional scale factors

**Higher / extension outcome:** Include negative scale factors

**What secure performance looks like:** You can recognise when rotation/reflection/translation/enlargement is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G8 | Combinations of transformations

**Pearson reference:** G8

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Combinations of transformations; invariance

**What secure performance looks like:** You can recognise when combinations of transformations is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G9 | Circle terminology: centre, radius, chord, diameter, circumference, tangent, arc, sec

**Pearson reference:** G9

**Foundation outcome:** Circle terminology: centre, radius, chord, diameter, circumference, tangent, arc, sector, segment

**Higher / extension outcome:** Apply terminology in complex problems

**What secure performance looks like:** You can recognise when circle terminology: centre, radius, chord, diameter, circumference, tangent, arc, sec is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G10 | Apply and prove standard circle theorems

**Pearson reference:** G10

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Apply and prove standard circle theorems

**What secure performance looks like:** You can recognise when apply and prove standard circle theorems is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G11 | Solve coordinate geometry problems

**Pearson reference:** G11

**Foundation outcome:** Solve coordinate geometry problems

**Higher / extension outcome:** Same in complex contexts

**What secure performance looks like:** You can recognise when solve coordinate geometry problems is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G12 | Faces/surfaces/edges/vertices of common solids

**Pearson reference:** G12

**Foundation outcome:** Faces/surfaces/edges/vertices of common solids

**Higher / extension outcome:** Same plus composite 3D reasoning

**What secure performance looks like:** You can recognise when faces/surfaces/edges/vertices of common solids is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G13 | Interpret plans/elevations

**Pearson reference:** G13

**Foundation outcome:** Interpret plans/elevations

**Higher / extension outcome:** Construct and interpret plans/elevations

**What secure performance looks like:** You can recognise when interpret plans/elevations is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G14 | Use standard units and related measurement concepts

**Pearson reference:** G14

**Foundation outcome:** Use standard units and related measurement concepts

**Higher / extension outcome:** Same with compound conversions

**What secure performance looks like:** You can recognise when use standard units and related measurement concepts is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G15 | Measure lengths/angles

**Pearson reference:** G15

**Foundation outcome:** Measure lengths/angles; maps/scale drawings; bearings

**Higher / extension outcome:** Same in multi-stage geometry

**What secure performance looks like:** You can recognise when measure lengths/angles is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G16 | Areas of triangles/parallelograms/trapezia

**Pearson reference:** G16

**Foundation outcome:** Areas of triangles/parallelograms/trapezia; volumes of cuboids/right prisms/cylinders

**Higher / extension outcome:** Same in compound solids

**What secure performance looks like:** You can recognise when areas of triangles/parallelograms/trapezia is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G17 | Circle circumference/area

**Pearson reference:** G17

**Foundation outcome:** Circle circumference/area; composite 2D perimeter/area

**Higher / extension outcome:** Surface area/volume of spheres, pyramids, cones, frustums and composite

solids

**What secure performance looks like:** You can recognise when circle circumference/area is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G18 | Arc lengths, sector angles and sector areas

**Pearson reference:** G18

**Foundation outcome:** Arc lengths, sector angles and sector areas

**Higher / extension outcome:** Same in multi-stage exact/algebraic problems

**What secure performance looks like:** You can recognise when arc lengths, sector angles and sector areas is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G19 | Congruence/similarity and length scale factors

**Pearson reference:** G19

**Foundation outcome:** Congruence/similarity and length scale factors

**Higher / extension outcome:** Area and volume scale factors for similar figures

**What secure performance looks like:** You can recognise when congruence/similarity and length scale factors is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G20 | Pythagoras and trig ratios in 2D right triangles

**Pearson reference:** G20

**Foundation outcome:** Pythagoras and trig ratios in 2D right triangles

**Higher / extension outcome:** Apply in 2D/3D and general geometric settings

**What secure performance looks like:** You can recognise when pythagoras and trig ratios in 2d right triangles is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G21 | Exact sin/cos values for 0,30,45,60,90

**Pearson reference:** G21

**Foundation outcome:** Exact sin/cos values for 0,30,45,60,90; tan for 0,30,45,60

**Higher / extension outcome:** Use exact values in algebraic/trig reasoning

**What secure performance looks like:** You can recognise when exact sin/cos values for 0,30,45,60,90 is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## G22 | Sine rule and cosine rule for unknown sides/angles

**Pearson reference:** G22

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Sine rule and cosine rule for unknown sides/angles

**What secure performance looks like:** You can recognise when sine rule and cosine rule for unknown sides/angles is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G23 | Area of triangle = $\frac{1}{2} ab \sin C$

**Pearson reference:** G23

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Area of triangle =  $\frac{1}{2} ab \sin C$

**What secure performance looks like:** You can recognise when area of triangle =  $\frac{1}{2} ab \sin c$  is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G24 | Describe translations using 2D vectors

**Pearson reference:** G24

**Foundation outcome:** Describe translations using 2D vectors

**Higher / extension outcome:** Same in geometric contexts

**What secure performance looks like:** You can recognise when describe translations using 2d vectors is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## G25 | Vector addition/subtraction/scalar multiplication

**Pearson reference:** G25

**Foundation outcome:** Vector addition/subtraction/scalar multiplication; column/diagram representations

**Higher / extension outcome:** Use vectors to construct geometric arguments/proofs

**What secure performance looks like:** You can recognise when vector addition/subtraction/scalar multiplication is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** Have I labelled the diagram and named the fact/theorem?

**Self-audit 2:** Are units and scale factors consistent?

**Self-audit 3:** Can I justify rather than only calculate?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## Probability

9 Pearson/DfE reference codes are audited here. The requirement text is independently paraphrased; the official code is retained.

### P1 | Record/describe/analyse experimental outcomes using tables and frequency trees

**Pearson reference:** P1

**Foundation outcome:** Record/describe/analyse experimental outcomes using tables and frequency trees

**Higher / extension outcome:** Same with complex experiments

**What secure performance looks like:** You can recognise when record/describe/analyse experimental outcomes using tables and frequency trees is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

### P2 | Randomness, fairness, equally likely events, expected outcomes

**Pearson reference:** P2

**Foundation outcome:** Randomness, fairness, equally likely events, expected outcomes

**Higher / extension outcome:** Same in multi-stage contexts

**What secure performance looks like:** You can recognise when randomness, fairness, equally likely events, expected outcomes is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

### P3 | Relative frequency vs theoretical probability

**Pearson reference:** P3

**Foundation outcome:** Relative frequency vs theoretical probability; probability scale 0 to 1

**Higher / extension outcome:** Same with sampling interpretation

**What secure performance looks like:** You can recognise when relative frequency vs theoretical probability is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

### P4 | Exhaustive/mutually exclusive probabilities sum to 1

**Pearson reference:** P4

**Foundation outcome:** Exhaustive/mutually exclusive probabilities sum to 1

**Higher / extension outcome:** Same in multi-event contexts

**What secure performance looks like:** You can recognise when exhaustive/mutually exclusive probabilities sum to 1 is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

### P5 | Understand empirical distributions approach theoretical distributions as

## sample size

**Pearson reference:** P5

**Foundation outcome:** Understand empirical distributions approach theoretical distributions as sample size increases

**Higher / extension outcome:** Same, with critical evaluation

**What secure performance looks like:** You can recognise when understand empirical distributions approach theoretical distributions as sample size is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## P6 | Systematically enumerate outcomes using tables/grids/Venn diagrams/tree diagrams

**Pearson reference:** P6

**Foundation outcome:** Systematically enumerate outcomes using tables/grids/Venn diagrams/tree diagrams

**Higher / extension outcome:** Same in complex set/event problems

**What secure performance looks like:** You can recognise when systematically enumerate outcomes using tables/grids/venn diagrams/tree diagrams is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## P7 | Construct possibility spaces and calculate theoretical probabilities

**Pearson reference:** P7

**Foundation outcome:** Construct possibility spaces and calculate theoretical probabilities

**Higher / extension outcome:** Same in combined experiments

**What secure performance looks like:** You can recognise when construct possibility spaces and calculate theoretical probabilities is required, carry out the method accurately, and explain or interpret the result in an

unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## P8 | Calculate independent/dependent combined-event probabilities

**Pearson reference:** P8

**Foundation outcome:** Calculate independent/dependent combined-event probabilities; know when to add/multiply

**Higher / extension outcome:** Same with conditional structure

**What secure performance looks like:** You can recognise when calculate independent/dependent combined-event probabilities is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

## P9 | Calculate/interpret conditional probabilities using expected frequencies, two-way tab

**Pearson reference:** P9

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Calculate/interpret conditional probabilities using expected frequencies, two-way tables, trees and Venn diagrams

**What secure performance looks like:** You can recognise when calculate/interpret conditional probabilities using expected frequencies, two-way tab is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What is the sample space?

**Self-audit 2:** Should probabilities add, multiply or use a conditional rule?

**Self-audit 3:** Do exhaustive outcomes total 1?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## Statistics

6 Pearson/DfE reference codes are audited here. The requirement text is independently paraphrased; the official code is retained.

### S1 | Infer population/distribution properties from samples

**Pearson reference:** S1

**Foundation outcome:** Infer population/distribution properties from samples; understand sampling limits

**Higher / extension outcome:** Same with critical sampling evaluation

**What secure performance looks like:** You can recognise when infer population/distribution properties from samples is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What representation/measure is appropriate?

**Self-audit 2:** Can I compare centre and spread with numbers?

**Self-audit 3:** Am I distinguishing association from causation?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

### S2 | Construct/interpret tables, frequency tables, bar/pie/pictograms, vertical line chart

**Pearson reference:** S2

**Foundation outcome:** Construct/interpret tables, frequency tables, bar/pie/pictograms, vertical line charts and time series

**Higher / extension outcome:** Choose appropriate representations and interpret trends

**What secure performance looks like:** You can recognise when construct/interpret tables, frequency tables, bar/pie/pictograms, vertical line chart is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What representation/measure is appropriate?

**Self-audit 2:** Can I compare centre and spread with numbers?

**Self-audit 3:** Am I distinguishing association from causation?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

### S3 | Construct/interpret histograms (equal/unequal intervals) and cumulative-frequency graphs

**Pearson reference:** S3

**Foundation outcome:** Not assessed at Foundation under this reference.

**Higher / extension outcome:** Construct/interpret histograms (equal/unequal intervals) and cumulative-frequency graphs

**What secure performance looks like:** You can recognise when construct/interpret histograms (equal/unequal intervals) and cumulative-frequency graphs is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What representation/measure is appropriate?

**Self-audit 2:** Can I compare centre and spread with numbers?

**Self-audit 3:** Am I distinguishing association from causation?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

### S4 | Compare distributions using appropriate graphs, mean/median/mode/range, box plots, quartiles/IQR

**Pearson reference:** S4

**Foundation outcome:** Compare distributions using appropriate graphs, mean/median/mode/range, box plots, quartiles/IQR

**Higher / extension outcome:** Use grouped/continuous data and sophisticated comparison

**What secure performance looks like:** You can recognise when compare distributions using appropriate graphs, mean/median/mode/range, box plots, quartiles/IQR is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What representation/measure is appropriate?

**Self-audit 2:** Can I compare centre and spread with numbers?

**Self-audit 3:** Am I distinguishing association from causation?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

*Source: [SPEC]*

### S5 | Apply statistics to describe a population

**Pearson reference:** S5

**Foundation outcome:** Apply statistics to describe a population

**Higher / extension outcome:** Same with inference

**What secure performance looks like:** You can recognise when apply statistics to describe a population is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What representation/measure is appropriate?

**Self-audit 2:** Can I compare centre and spread with numbers?

**Self-audit 3:** Am I distinguishing association from causation?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## S6 | Scatter graphs/correlation

**Pearson reference:** S6

**Foundation outcome:** Scatter graphs/correlation; line of best fit; interpolation/extrapolation; correlation  $\neq$  causation

**Higher / extension outcome:** Same with critical interpretation

**What secure performance looks like:** You can recognise when scatter graphs/correlation is required, carry out the method accurately, and explain or interpret the result in an unfamiliar problem.

**Self-audit 1:** What representation/measure is appropriate?

**Self-audit 2:** Can I compare centre and spread with numbers?

**Self-audit 3:** Am I distinguishing association from causation?

**Evidence to keep:** Record one fluency example, one reasoning example and one unfamiliar multi-step example before marking this reference secure.

Source: [SPEC]

## Part 3 - Revision audit and priority planner

| Ref | Tier | Confidence 1-5 | Last score | Error trigger | Next retest |
|-----|------|----------------|------------|---------------|-------------|
| N1  | F/H  |                |            |               |             |
| N2  | F/H  |                |            |               |             |
| N3  | F/H  |                |            |               |             |
| N4  | F/H  |                |            |               |             |
| N5  | F/H  |                |            |               |             |
| N6  | F/H  |                |            |               |             |
| N7  | F/H  |                |            |               |             |

| Ref | Tier | Confidence 1-5 | Last score | Error trigger | Next retest |
|-----|------|----------------|------------|---------------|-------------|
| N8  | F/H  |                |            |               |             |
| N9  | F/H  |                |            |               |             |
| N10 | F/H  |                |            |               |             |
| N11 | F/H  |                |            |               |             |
| N12 | F/H  |                |            |               |             |
| N13 | F/H  |                |            |               |             |
| N14 | F/H  |                |            |               |             |
| N15 | F/H  |                |            |               |             |
| N16 | F/H  |                |            |               |             |
| A1  | F/H  |                |            |               |             |
| A2  | F/H  |                |            |               |             |
| A3  | F/H  |                |            |               |             |
| A4  | F/H  |                |            |               |             |
| A5  | F/H  |                |            |               |             |
| A6  | F/H  |                |            |               |             |
| A7  | F/H  |                |            |               |             |
| A8  | F/H  |                |            |               |             |
| A9  | F/H  |                |            |               |             |
| A10 | F/H  |                |            |               |             |
| A11 | F/H  |                |            |               |             |
| A12 | F/H  |                |            |               |             |
| A13 | H    |                |            |               |             |
| A14 | F/H  |                |            |               |             |

| Ref | Tier | Confidence 1-5 | Last score | Error trigger | Next retest |
|-----|------|----------------|------------|---------------|-------------|
| A15 | H    |                |            |               |             |
| A16 | H    |                |            |               |             |
| A17 | F/H  |                |            |               |             |
| A18 | F/H  |                |            |               |             |
| A19 | F/H  |                |            |               |             |
| A20 | H    |                |            |               |             |
| A21 | F/H  |                |            |               |             |
| A22 | F/H  |                |            |               |             |
| A23 | F/H  |                |            |               |             |
| A24 | F/H  |                |            |               |             |
| A25 | F/H  |                |            |               |             |
| R1  | F/H  |                |            |               |             |
| R2  | F/H  |                |            |               |             |
| R3  | F/H  |                |            |               |             |
| R4  | F/H  |                |            |               |             |
| R5  | F/H  |                |            |               |             |
| R6  | F/H  |                |            |               |             |
| R7  | F/H  |                |            |               |             |
| R8  | F/H  |                |            |               |             |
| R9  | F/H  |                |            |               |             |
| R10 | F/H  |                |            |               |             |
| R11 | F/H  |                |            |               |             |
| R12 | F/H  |                |            |               |             |

| Ref | Tier | Confidence 1-5 | Last score | Error trigger | Next retest |
|-----|------|----------------|------------|---------------|-------------|
| R13 | F/H  |                |            |               |             |
| R14 | F/H  |                |            |               |             |
| R15 | H    |                |            |               |             |
| R16 | F/H  |                |            |               |             |
| G1  | F/H  |                |            |               |             |
| G2  | F/H  |                |            |               |             |
| G3  | F/H  |                |            |               |             |
| G4  | F/H  |                |            |               |             |
| G5  | F/H  |                |            |               |             |
| G6  | F/H  |                |            |               |             |
| G7  | F/H  |                |            |               |             |
| G8  | H    |                |            |               |             |
| G9  | F/H  |                |            |               |             |
| G10 | H    |                |            |               |             |
| G11 | F/H  |                |            |               |             |
| G12 | F/H  |                |            |               |             |
| G13 | F/H  |                |            |               |             |
| G14 | F/H  |                |            |               |             |
| G15 | F/H  |                |            |               |             |
| G16 | F/H  |                |            |               |             |
| G17 | F/H  |                |            |               |             |
| G18 | F/H  |                |            |               |             |
| G19 | F/H  |                |            |               |             |

| Ref | Tier | Confidence 1-5 | Last score | Error trigger | Next retest |
|-----|------|----------------|------------|---------------|-------------|
| G20 | F/H  |                |            |               |             |
| G21 | F/H  |                |            |               |             |
| G22 | H    |                |            |               |             |
| G23 | H    |                |            |               |             |
| G24 | F/H  |                |            |               |             |
| G25 | F/H  |                |            |               |             |
| P1  | F/H  |                |            |               |             |
| P2  | F/H  |                |            |               |             |
| P3  | F/H  |                |            |               |             |
| P4  | F/H  |                |            |               |             |
| P5  | F/H  |                |            |               |             |
| P6  | F/H  |                |            |               |             |
| P7  | F/H  |                |            |               |             |
| P8  | F/H  |                |            |               |             |
| P9  | H    |                |            |               |             |
| S1  | F/H  |                |            |               |             |
| S2  | F/H  |                |            |               |             |
| S3  | H    |                |            |               |             |
| S4  | F/H  |                |            |               |             |
| S5  | F/H  |                |            |               |             |
| S6  | F/H  |                |            |               |             |

## References and source register

[SPEC] Pearson Edexcel Level 1/Level 2 GCSE (9-1) Mathematics (1MA1), Specification Issue 2, current Pearson qualification page checked 29 October 2026.

<https://qualifications.pearson.com/content/dam/pdf/GCSE/mathematics/2015/specification-and-sample-assesment/gcse-maths-2015-specification.pdf>

[QUAL] Pearson Edexcel GCSE Mathematics (9-1) qualification page.

<https://qualifications.pearson.com/en/qualifications/edexcel-gcses/mathematics-2015.html>

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