

Subject	Foundation Mathematics	Exam Board	AQA	Course Code	8300
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Overview

Mock Assessments
One Non-Calculator Paper (Paper 1) 90 minutes. Two Calculator Papers (Papers 2 and 3) 90 minutes for each paper. Full mathematics equipment required.

Thread : Topic : Additional Detail (if needed)

Algebra : Equations : Forming and Solving Equations	
Algebra : Equations : Solving Linear equations	
Algebra : Equations of Lines : Understanding $y = mx + c$	
Algebra : Expressions : Writing Expressions	
Algebra : Factorising : Factorising into 1 bracket	
Algebra : Formulae : Changing the Subject	
Algebra : Graphs : Quadratic Graphs	
Algebra : Linear Graphs : Gradient of Line	
Algebra : Manipulation : Collecting Like Terms	
Algebra : Manipulation : Expanding 1 bracket	
Algebra : Manipulation : Forming Expressions	
Algebra : Proof : Defining statements with positive and negative numbers	
Algebra : Sequences : Fibonacci-style sequences	
Algebra : Sequences : Generating from nth term	
Algebra : Substitution : Substituting into expressions	
Algebra : Inequalities : Representing Inequalities	
Algebra : Inequalities : Solving Inequalities	
Algebra : Manipulation : Expanding single brackets	
Algebra : Manipulation : Multiplying terms	
Algebra : Manipulation : Simplifying Expressions	
Algebra : Proportionality : Graphs of proportional	
Algebra : Quadratic expressions : Factorising Quadratics	
Algebra : Real-Life Graphs : Understanding the gradient and intercept in context	
Geometry and Measure : 2D Shapes : Properties of Quadrilaterals	
Geometry and Measure : 2D Shapes : Properties of Shapes	
Geometry and Measure : 3D Shapes : Properties of Solids	
Geometry and Measure : Angle Properties : Angles around a point	
Geometry and Measure : Angle properties : Parallel Lines	
Geometry and Measure : Angle Properties : Triangles and Exterior Angles	
Geometry and Measure : Area : Circles	
Geometry and Measure : Area : Triangles	
Geometry and Measure : Bearings and Scale Drawing	
Geometry and Measure : Circle Properties : Parts of a Circle	
Geometry and Measure : Compound Measures : Converting	
Geometry and Measure : Compound Units : Speed-Distance	
Geometry and Measure : Constructions : Ruler and Protractor	
Geometry and Measure : Converting Units	
Geometry and Measure : Loci	
Geometry and Measure : Metric Units : Converting between units	
Geometry and Measure : Plans and Elevations	
Geometry and Measure : Pythagoras' Theorem	
Geometry and Measure : Regular Polygons : Exterior and Interior Angles	
Geometry and Measure : Scale Drawings : Measuring and Estimating	
Geometry and Measure : Similarity	
Geometry and Measure : Time and Measure	

Given Formulae for Assessments

Perimeter, area and volume

Where a and b are the lengths of the parallel sides and h is their perpendicular separation:

$$\text{Area of a trapezium} = \frac{1}{2}(a + b)h$$

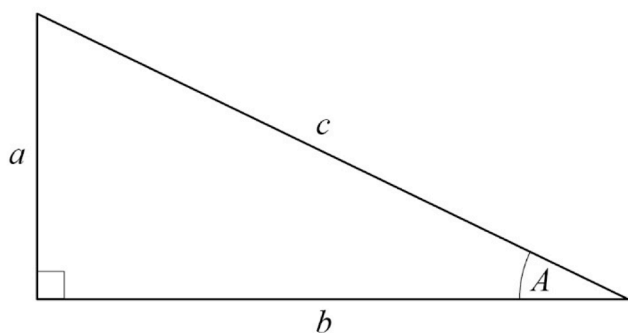
Volume of a prism = area of cross section \times length

Where r is the radius and d is the diameter:

$$\text{Circumference of a circle} = 2\pi r = \pi d$$

$$\text{Area of a circle} = \pi r^2$$

Pythagoras' Theorem and Trigonometry



In any right-angled triangle where a , b and c are the length of the sides and c is the hypotenuse:

$$a^2 + b^2 = c^2$$

In any right-angled triangle ABC where a , b and c are the length of the sides and c is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$

Compound Interest

Where P is the principal amount, r is the interest rate over a given period and n is number of times that the interest is compounded:

$$\text{Total accrued} = P \left(1 + \frac{r}{100} \right)^n$$

Probability

Where $P(A)$ is the probability of outcome A and $P(B)$ is the probability of outcome B :

$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$