

# Mathematics Three Points

Subject	Topics
<b>Unit 1</b>	
Pre-Algebra	Basic operations, Fractions, Factors, Arithmetic Progression, Quadratic Equations, Reading Graphs, Profit and Loss Percentages, Series and Sequences
Geometry and Trigonometry	Analytical Geometry: Points, Lines, Planes and Angles, Measuring line segments, Equation of a plane
Statistics	Frequency and Relative Frequency, Frequency Tables, Mean, Median and Mode, Methods of Displaying Data: line diagrams, circle diagrams and organization in tables
Probability	Probability of Events, Independent Events, Complementary Events, Finding the Odds, Consolidation
<b>Unit 2</b>	
Algebra	Simplifying Rational Expressions, Differential Equations, Linear - Quadratic Functions, Graphing Parabolas, Exponents, Scientific Notation, Arithmetic Progression, Recurrence Relation, Geometric Progression, Exponential Growth and Decay
Trigonometry	Trigonometric Functions, Properties of Polygons, Calculating Distances, Perimeter and Area, Trigonometry Formulas for Area of Triangle, Shape, Space and Measures
Statistics and Normal Distribution	Frequency and Relative Frequency, Frequency Table, Mean, Median and Mode, Methods of Displaying Data: line diagrams, circle diagrams and organization in tables, Standard Deviation, Normal Distribution
Probability	Probability: Probability of an Event, Complementary Events, Consolidation of Events, Conditional Probability, Tables, Tree diagrams and other diagrams
<b>Unit 3</b>	
Algebra	Profit and Loss Percentages, Movement, Euclidean Geometry
Geometry	Analytic Geometry, Analytic Geometry in a Circle; Canonical Form, General Circle, Circle and Line Divisions, Perpendicular Tangent Theorem

Pre-Calculus	<p>Differential Calculus: Derivatives and Derivatives Rules, Trigonometric Functions and their Graphs-Tangent, Derivative of a Fixed Number, Polynomial Roots, Roots of a Rational Function, Domain of a Function, Equation of a Tangent, Extreme Points of a Function, Fields Ascension and Declination of a Function, Vertical Asymptote, Horizontal Asymptote, Investigation of a Function</p> <p>Integral Calculus: Early Transcendental, Integrals of a Fixed Number and Polynomial, Evaluating an Integral with Unspecified Functions, Finding and Early Transcendental, Finding the Area between the Function and the Axis, The Area Between two Functions, Complex Areas</p> <p>Absolute Extrema: Numbers, Geometry, Objects in the Area, Movement, Buying and Selling Graphs</p>
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# Mathematics Four Points

Subject	Topics
<b>Unit 1</b>	
Algebra	Profit and Loss Percentages, Movement, Euclidean Geometry
Geometry	Analytic Geometry, Analytic Geometry in a Circle; Canonical Form, General Circle, Circle and Line Divisions, Perpendicular Tangent Theorem
Pre-Calculus	<p>Differential Calculus: Derivatives and Derivatives Rules, Trigonometric Functions and their Graphs-Tangent, Derivative of a Fixed Number, Polynomial Roots, Roots of a Rational Function, Domain of a Function, Equation of a Tangent, Extreme Points of a Function, Fields Ascension and Declination of a Function, Vertical Asymptote, Horizontal Asymptote, Investigation of a Function</p> <p>Integral Calculus: Early Transcendental, Integrals of a Fixed Number and Polynomial, Evaluating an Integral with Unspecified Functions, Finding and Early Transcendental, Finding the Area between the Function and the Axis, The Area Between two Functions, Complex Areas</p> <p>Absolute Extrema: Numbers, Geometry, Objects in the Area, Movement, Buying and Selling Graphs</p>
<b>Unit 2</b>	
Introduction to Algebra	Introduction to Algebraic Technique, Abridged Multiplication Formulas, Exponents and Square Roots, Algebraic Technique of Equations, Rational Equations, First and Second Class Functions, Intersection of Line and Parabola, Algebraic Technique of Inequalities, Inequalities of the First and Second Degree, Rational Inequalities
Word Problems	Motion, Buying and Selling (with and without percentages)
Analytical Geometry:	<p>Lines: Straight Lines, Distance Formulas, Pythagorean Theorem</p> <p>Circles: Hyperbola</p>
Probability	Independent Events and Dependent Events, Tree Diagram, Tables to Calculate the Probability, Binomial Distribution and Conditional Probability
Plane Geometry	Angles and Parallel Sections, Cutting a Cone, Quadrilaterals, Similarity (Triangles, Thales' Theorem etc.) Geometry Circles and Polygons Blocking / Blocked Circles

Calculus	Functions and Graphs, Features, Functions Odd / Even, the Slope of the Function and Derivatives, Polynomial Functions, Rational Functions, Functions with Square Roots, Relationship Between the Function Graph Derivative, Definite Integrals, Graphing Radical Functions, Solving Radical Equations, Integrals of Rational Functions, Evaluating Definite Integrals
Extreme Value Problems	Introduction to Problems with Functions and Graphs, Extreme Value Problems Geometry, Extreme Plane Geometry Problems.
<b>Unit 3</b>	
Algebra	Algebraic Technique, Exponential Equations and Draws, Logarithms
Sequences	Arithmetic Progression Formula, Geometric Progression
Area in Trigonometry	Box, Cube, Flat Triangular Prism, Pyramids: Straight, Square, Flat and Triangular, Functions and Equations, Graphs of trigonometric functions and solving trigonometric equations
Growth and Decay	Problems of Exponential Growth and Decay
Calculus	Exponential Functions, Derivatives, Definition of the Domain of a Function, Extreme Points, Areas of Ascension and Declination, Tangents, Inflection Points, Concavity Areas, Investigation of Asymptotic and Exponential Functions, Logarithmic, Derivatives Field Definition Trigonometric Equations (advanced), Trigonometric equations that are resolved with the removal of the root, Factoring, Positioning and Identity. Trigonometric Functions, Tangent, Areas of Ascension and Declination, Extreme, Asymptotic and Investigation of Trigonometric Functions. Integration of Exponential Functions, Computing Definite Integrals, Integrals of Trigonometric Functions, Advanced Integration Methods and Calculating the Integral with Particular Areas

# Mathematics Five Points

Subject	Topics
<b>Unit 1</b>	
Algebra	Algebraic Technique, Exponential Equations and Draws, Logarithms
Sequences	Arithmetic Progression Formula, Geometric Progression
Area in Trigonometry	Box, Cube, Flat Triangular Prism, Pyramids: Straight, Square, Flat and Triangular, Functions and Equations, Graphs of trigonometric functions and solving trigonometric equations
Growth and Decay	Problems of Exponential Growth and Decay
Calculus	Exponential Functions, Derivatives, Definition of the Domain of a Function, Extreme Points, Areas of Ascension and Declination, Tangents, Inflection Points, Concavity Areas, Investigation of Asymptotic and Exponential Functions, Logarithmic, Derivatives Field Definition Trigonometric Equations (advanced), Trigonometric equations that are resolved with the removal of the root, Factoring, Positioning and Identity. Trigonometric Functions, Tangent, Areas of Ascension and Declination, Extreme, Asymptotic and Investigation of Trigonometric Functions. Integration of Exponential Functions, Computing Definite Integrals, Integrals of Trigonometric Functions, Advanced Integration Methods and Calculating the Integral with Particular Areas
<b>Unit 2</b>	
Algebra and Algebraic Techniques	Introduction to Technical Algebra, Algebraic Techniques-Equations; equations to the first and second degree, disappearing denominators, system of equations, special equations, absolute value equations with radicals
Inequalities	First and second degree, inequalities with disappearing denominators, compound inequalities
Differential Equations	Domain and range of linear and quadratic functions
Analytic Geometry	
Word Problems	Movement, linear programming
Sequences	Arithmetic progression and formulas, geometric progression and formulas, integrated progression and formulas

Plane Geometry	Angles and Parallel Sections, Polygons and Overlaps, Laws of Proportion and Similarity, Circles
Plane Trigonometry	Polygons, Law of Sines and the Law of Cosines
Calculus	Trigonometry - Functions and Equations, Calculus - Functions and Graphs, Polynomials, Rational Functions, Functions with Square Roots, Functions with Absolute Value, Trigonometric Functions, Relationship Between a Function and it's Derivative, Non-Specific Integrals, Specific Integrals Extreme Value: Introduction to extreme functions and graphing, plane geometry, space geometry, integrals
<b>Unit 3</b>	
Algebra and Algebraic Techniques	Systematic Equations and Inequalities, Logarithms of Equations and Inequalities
Analytic Geometry	Geometry of the Point and Straight Line, Circle, Parabola, Ellipse, Geometric Places
Trigonometry in Space	Objects in Space
Vectors	Geometric Vectors, Algebraic Vectors, Lines and Planes, Angles and Distance
Complex Numbers	Algebra of Complex Numbers, Gauss's Law, Complex Sequences and Series Exponential Growth and Decay Problems
Calculus	Exponential Functions, Logarithmic Function, Polynomial and Rational Function Modeling, Non-Specific Integrals, Specific Integrals
Extreme Value	Exponential Functions, Logarithmic Function, Approximating Square Roots to Hundreds, Integrals