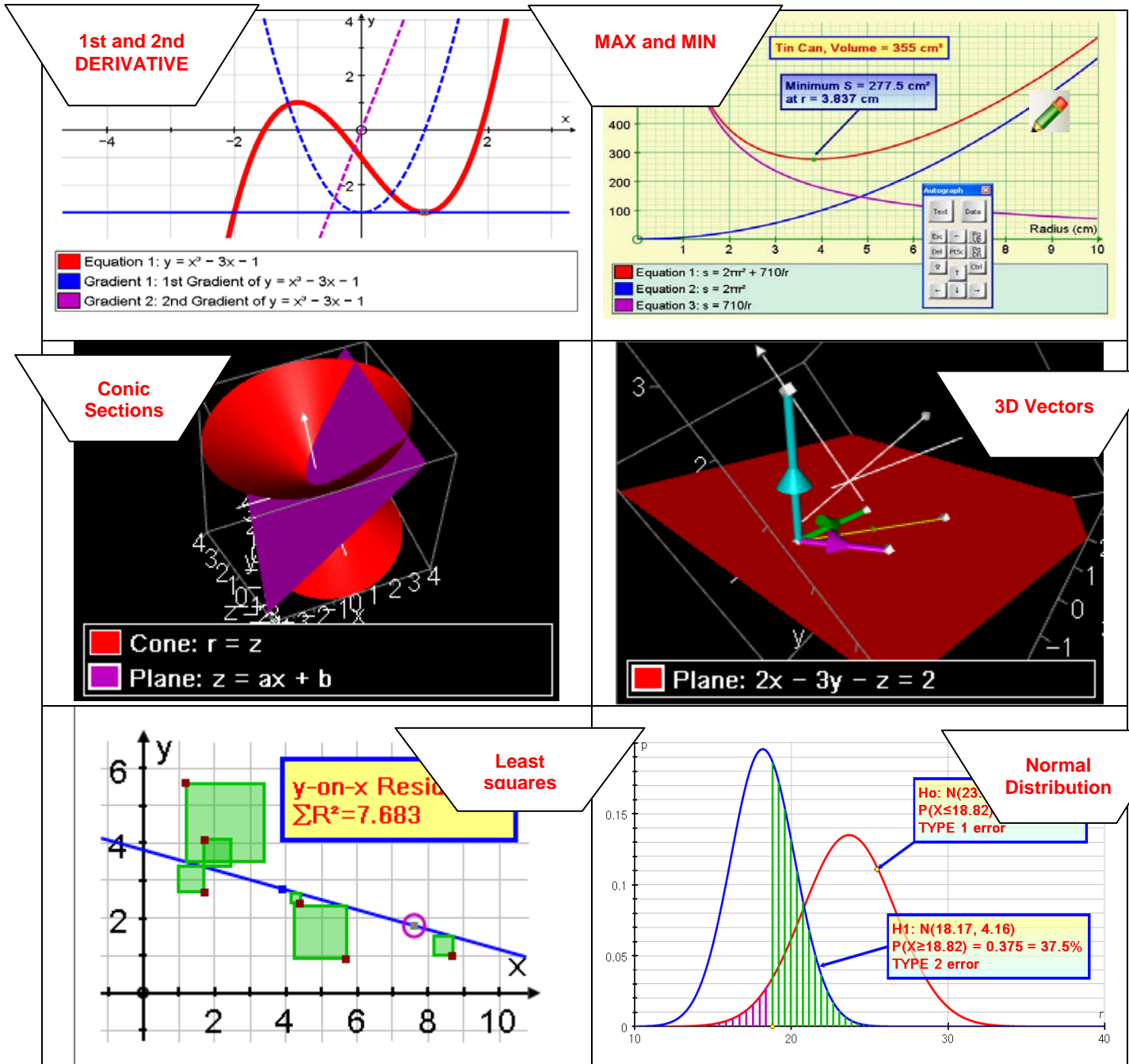


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THAILAND: ENRICHMENT COURSE Curriculum (Grades 10-12)

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ENRICHMENT COURSE: Grade 10-1

- Chapter 1 Logic
- Chapter 2 Real number system
- Chapter 3 Introduction to number theory

ENRICHMENT COURSE: Grade 10-2

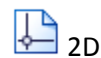
Chapter 1 System of linear equations and Matrix

- 1.1 System of linear equations
- 1.2 Matrix
- 1.3 Multiplicative inverse of matrix
- 1.4 Solving system of linear equations with matrix



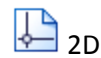
Chapter 2 Function

- 2.1 Relations
 - 2.1.1 Cartesian Product
 - 2.1.2 Definition of a relation
 - 2.1.3 Domain and range of a relation
- 2.2 Inverse of Relations
- 2.3 Function
 - 2.3.1 Definition of a function
 - 2.3.2 Operations of functions
 - 2.3.3 Inverse function



Chapter 3 Analytic Geometry

- 3.1 Introduction to Analytic Geometry
 - 3.1.1 Distance between two points
 - 3.1.2 Mid-point
 - 3.1.3 Slope of a straight line
 - 3.1.4 Parallel lines
 - 3.1.5 Perpendicular lines
 - 3.1.6 Distance between a point to a straight line
- 3.2 Conic Section
 - 3.2.1 Circle
 - 3.2.2 Ellipse
 - 3.2.3 Parabola
 - 3.2.4 Hyperbola
 - 3.2.5 Translation of graphs



ENRICHMENT COURSE: Grade 11-1

Contents

Chapter 1 Exponential Functions and Logarithm Functions

- 1.1 Exponential notation with integral indices
- 1.2 n^{th} root and radical of a real number
- 1.3 Exponential notation with rational indices
- 1.4 Exponential functions
- 1.5 Logarithmic functions
- 1.6 Finding a log value
- 1.7 Changing bases of a log
- 1.8 Exponential equations and logarithmic equations
- 1.9 Application of 1.8



Chapter 2 Trigonometric Function

- 2.1 Sine and cosine functions
- 2.2 Value of sine and cosine functions
- 2.3 Other trigonometric functions
- 2.4 Trigonometric function of an angle
- 2.5 Graphs of trigonometric Functions
- 2.6 Trig: addition or subtraction of real numbers or angles
- 2.7 Inverse of trigonometric functions
- 2.8 Identity and equation of trigonometric functions
- 2.9 Cosine Law and Sine Law
- 2.10 Finding distance and height (trig)



Chapter 3 Vectors in three dimensions

- 3.1 Three dimensional rectangular coordinate system
- 3.2 Vectors
- 3.3 Vectors in rectangular coordinate system
- 3.4 Scalar products
- 3.5 Vector products



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ENRICHMENT COURSE: Grade 11-2

- Chapter 1 **Complex Number**
- Chapter 2 Introduction to graph theory
- Chapter 3 Probability
 - 3.1 Introduction to combinatorial
 - 3.2 Permutation
 - 3.3 Combination
 - 3.4 **Binomial theorem**
 - 3.5 **Probability (discrete data only)**

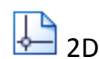


ENRICHMENT COURSE: Grade 12-1

- Chapter 1 Fundamental of Data Analysis**
 - 1.1 Measure of central value
 - 1.1.1 Arithmetic mean
 - 1.1.2 Median
 - 1.1.3 Mode
 - 1.1.4 Geometric mean
 - 1.2 Measure of relative standing
 - 1.3 Measure of dispersion
 - 1.3.1 Measure of absolute variation
 - 1.3.2 Measure of relative variation
 - 1.3.3 Relations of data distribution, central value and dispersion

- Chapter 2 Normal distribution**
 - 2.1 **Standard score or z-score**
 - 2.2 **Normal distribution and normal curve**

- Chapter 3 Functional relationship of data**
 - 3.1 **Analysis of functional relationship of data**
 - 3.2 **Scatterplots**
 - 3.3 **Estimation of constant using method of least square**
 - 3.4 **Functional relationship of time series data**



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ENRICHMENT COURSE: Grade 12-2

Chapter 1 Infinite sequences and infinite series

1.1 Infinite sequence

- 1.1.1 Sequences
- 1.1.2 Arithmetic sequence
- 1.1.3 Geometric sequence
- 1.1.4 Limit of a sequence



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1.2 Infinite series

- 1.2.1 The sum of an infinite series
- 1.2.2 Summation notation and series



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Chapter 2 Introduction to calculus

- 2.1 Limit of a function
- 2.2 Continuity of a function
- 2.3 Slope of curves
- 2.4 Derivative of a function
- 2.5 Derivative rules of algebraic functions
- 2.6 Chain rule
- 2.7 High order derivative
- 2.8 Application of derivative
- 2.9 Antiderivative
- 2.10 Indefinite integral
- 2.11 Definite integral
- 2.12 Area under a graph



2D



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Chapter 3 Linear Programming

- 3.1 Graph of a linear inequality
- 3.2 Graph of a system of linear inequalities
- 3.3 Solving linear programming problems



2D



2D

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