FOUNDATIONS AND PRE-CALCULUS 10

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TEXTBOOK: Theory and Problems for Foundations of Mathematics and Pre-Calculus 10 – Third Edition

COURSE OBJECTIVE

Foundations of Mathematics and Pre-Calculus 10 is designed to build essential algebraic and problem-solving skills required for senior mathematics courses and a variety of post-secondary pathways. Students will develop a foundational understanding of number operations, polynomials, linear equations, systems, financial literacy, and trigonometry. Emphasis is placed on reasoning, modeling, and applying concepts to real-world and mathematical situations.

COURSE CONTENT

Term 1

Unit 0: Problem Solving and Reflective Practice
Unit 1: Real Numbers
Unit 2: Polynomials
Unit 3: Relations and Functions

Term 2
Unit 3: Linear Functions
Unit 4: Linear Equations
Unit 5: Solving Linear Systems

Term 3
Unit 6: Finance
Unit 7: Trigonometry
Final Exam Preparation and Assessment

SUPPLEMENTARY RESOURCES

YouTube: *Mathematics is the sense you never knew you had* | Eddie Woo | TEDxSydney
Book: *A Mathematician Reads the Newspaper* – John Allen Paulos
Book: *How Not to Be Wrong: The Power of Mathematical Thinking* – Jordan Ellenberg
Book: *Mathematical Sorcery* – David Berlinski

SUPPLIES (to be brought to every class)

2-inch 3-RING binder with lined paper
Pencils, eraser, Ruler*, Protractor*, Compass (OR *Complete Geometry set)
Scientific or Graphing Calculator (Recommended models: TI-83/84 or Desmos app)

MARK BREAKDOWN

Classwork 40%
Includes readings, activities, and workbook assignments.

Quizzes 20%
There will be a quiz on the topics we covered in class after each unit is completed.

Mid and Term Finals 20%
Both mid and term finals will be cumulative tests covering multiple units.

Final Exam 20%
There will be a final examination covering the entire course.