Course Name: Applied Math Skills for Problem Solving

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1. Course Module Structure

This course is divided into 10 structured modules designed to develop practical mathematical understanding, logical reasoning, and real-world problem-solving skills. Each module focuses on applying mathematical concepts to everyday situations, helping learners build confidence in handling numerical and analytical challenges. The course encourages critical thinking, step-by-step problem analysis, and the use of mathematical tools to make informed decisions in academic and real-life contexts.

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2. Module, 3. Topic & 4. Module for 10

Module 1: Fundamentals of Applied Mathematics
Topics:
• Importance of applied mathematics
• Basic arithmetic operations
• Understanding numbers and patterns
• Real-life examples of math

Module 2: Algebra for Problem Solving
Topics:
• Introduction to algebraic expressions
• Solving simple equations
• Variables and constants
• Practical applications of algebra

Module 3: Ratios, Proportions & Percentages
Topics:
• Understanding ratios and proportions

• Percentage calculations
• Profit and loss basics
• Real-world problem solving

Module 4: Geometry in Daily Life
Topics:
• Basic shapes and properties
• Area and perimeter
• Measurement concepts
• Practical geometry applications

Module 5: Data Interpretation & Analysis
Topics:
• Reading charts and graphs
• Tables and data representation
• Basic statistics concepts
• Drawing conclusions from data

Module 6: Logical Reasoning & Patterns
Topics:
• Identifying patterns
• Sequence and series
• Logical thinking strategies
• Problem-solving techniques

Module 7: Financial Mathematics
Topics:
• Budgeting basics
• Simple and compound interest
• Savings and investments
• Everyday financial decisions

Module 8: Mathematical Modeling
Topics:
• Translating real problems into math
• Forming equations

• Estimation techniques
• Solving real-life scenarios

Module 9: Technology in Mathematics
Topics:
• Using calculators effectively
• Introduction to spreadsheets
• Digital tools for problem solving
• Accuracy and efficiency

Module 10: Practice & Final Assessment
Topics:
• Application-based exercises
• Case studies and activities
• Review and revision
• Final evaluation