

Chicago Detective Explorers ACT Mathematics Mastery

Curriculum



Introduction

The ACT Mathematics Mastery Course by Chicago Detective Explorers is a comprehensive, high-impact program designed to equip students with the knowledge, strategies, and confidence needed to excel on the ACT Math section. This structured 6-module curriculum covers all key math topics, including algebra, geometry, trigonometry, and advanced problem-solving techniques.

Students will learn time-saving shortcuts, calculator strategies, and multiple-choice elimination techniques to maximize efficiency.

Through hands-on practice, simulated timed tests, and personalized error analysis, students will develop the ability to tackle complex math problems with ease.

Our step-by-step breakdowns and real-world examples make even the toughest math concepts easy to understand and apply.

Whether you're aiming to boost your score for college admissions or reach a competitive percentile, this course provides the essential tools and strategies to help you succeed.

Join us and become a math detective, unlocking the secrets to a higher ACT score!

So Let's get started

Full Term Course

This is an instructor facilitated Full-Term course. The course consists of 06 modules. Please note that all topics for the current module are to be completed before proceeding to the next module.

Course Prerequisites

- *Basic understanding of algebra and geometry concepts typically covered in high school coursework.*

Who is the course for?

- *High school students preparing for the ACT who want to improve their math scores.*
- *Students struggling with ACT math timing, problem-solving, or test strategies.*



WHAT YOU WILL ACHIEVE

Outcome-1

Master ACT math concepts across algebra, geometry, and advanced problem-solving.

Outcome-2

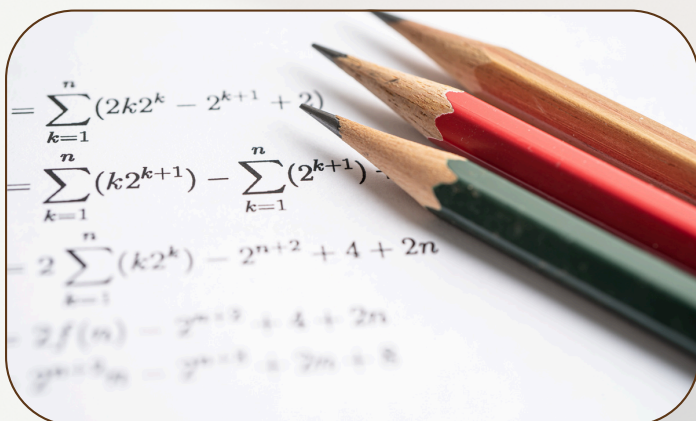
Apply test-taking strategies to increase speed and accuracy in solving ACT questions.

Outcome-3

Develop confidence and efficiency in tackling complex math problems under time constraints.



Course Outline



Module-1

ACT MATH ESSENTIALS & TEST STRATEGIES

- ACT 2025 UPDATES & SCORING – UNDERSTAND CHANGES, BENCHMARKS, AND SCORING STRATEGIES.
- TIME MANAGEMENT & MULTIPLE CHOICE TACTICS – LEARN EFFICIENT PACING AND ELIMINATION TECHNIQUES.
- CALCULATOR GUIDELINES – MAXIMIZE CALCULATOR EFFICIENCY FOR FASTER CALCULATIONS.

Module-2

PRE-ALGEBRA & ALGEBRA FOUNDATIONS

- NUMBER PROPERTIES, FRACTIONS, RATIOS – MASTER KEY PRE-ALGEBRA CONCEPTS.
- LINEAR EQUATIONS & INEQUALITIES – SOLVE AND GRAPH EQUATIONS EFFICIENTLY.
- STATISTICS & WORD PROBLEMS – TACKLE PROBABILITY, MEAN/MEDIAN/MODE, AND ACT-STYLE WORD PROBLEMS.

Module-3

INTERMEDIATE ALGEBRA & FUNCTIONS

- QUADRATICS, POLYNOMIALS, AND EXPONENTS – FACTOR, GRAPH, AND SOLVE COMPLEX EQUATIONS.
- FUNCTIONS & SYSTEMS OF EQUATIONS – INTERPRET FUNCTION NOTATION AND SOLVE EQUATION SYSTEMS.
- COMPLEX NUMBERS & MATRICES – HANDLE ADVANCED ALGEBRA TOPICS TESTED ON THE ACT.

Module-4

GEOMETRY & TRIGONOMETRY

- PLANE & COORDINATE GEOMETRY – APPLY KEY FORMULAS AND PROBLEM-SOLVING TECHNIQUES.
- TRIANGLES, CIRCLES & TRANSFORMATIONS – USE PYTHAGOREAN THEOREM, TRIGONOMETRIC RATIOS, AND SYMMETRY.
- AREA, VOLUME & TRIGONOMETRY – SOLVE SPATIAL PROBLEMS EFFICIENTLY.

Course Outline



Module-5

ADVANCED PROBLEM-SOLVING & TEST STRATEGIES

- **MULTI-STEP & DATA ANALYSIS PROBLEMS – BREAK DOWN COMPLEX PROBLEMS WITH LOGIC AND PATTERNS.**
- **GRAPH INTERPRETATION & LOGIC-BASED QUESTIONS – SOLVE ACT-STYLE CHART AND REASONING PROBLEMS.**
- **TIME-SAVING SHORTCUTS & CALCULATOR HACKS – LEARN FAST PROBLEM-SOLVING TECHNIQUES.**

Module-6

ACT MATH PRACTICE & PERFORMANCE MASTERY

- **TIMED ACT MATH SIMULATIONS – DEVELOP SPEED AND ACCURACY UNDER TEST CONDITIONS.**
- **ERROR ANALYSIS & SCORE TRACKING – IDENTIFY WEAK AREAS AND TRACK PROGRESS.**
- **TEST DAY READINESS & MENTAL MATH – BOOST CONFIDENCE AND EFFICIENCY ON EXAM DAY.**

JOIN THE COURSE



🔥 Master the ACT Math Section with Confidence!
Join Chicago Detective Explorers' ACT
Mathematics Mastery Course and take your score
to the next level! 🚀

Register Now!