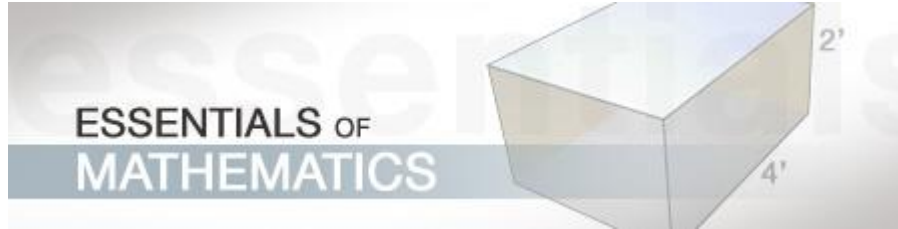


NFC ACADEMY



ESSENTIALS OF MATHEMATICS

COURSE OVERVIEW

Essentials of Mathematics is a semester-length review of the fundamentals taught in Pre-Algebra, Algebra I and Geometry courses and is useful at the high school level for basic skill remediation and/or practice necessary to prepare for a state exam. The course highlights basic mathematical skills through multiple review, practice and sample exam questions.

OBJECTIVES

UPON SUCCESSFULLY COMPLETING THE COURSE, THE STUDENT SHOULD HAVE MASTERED THE FOLLOWING CONCEPTS:

- Understand and know how to compute and define rational numbers
- Perform basic operations such as addition, subtraction, multiplication, and division with fractions, decimals, and percent
- Apply basic fundamental rules of exponents as well as scientific notation
- Be able to construct basic and complex geometric shapes; solve for perimeter, area, surface area, and volume
- Use inductive and deductive reasoning, conjectures, and estimation necessary to construct a picture, formula or equation needed for analyzing and solving algebraic and geometric word problems involving basic probability and statistical reasoning, scale factor, graphic representation of quantities, and linear systems of equations

- Solve single variable, absolute value, and linear systems of equations
- Evaluate, solve, and graph linear functions as well as conceptualize the relationship between the independent and dependent variable of a function
- Simplify and perform operations with radical expressions and polynomials
- Understand and know how to apply the slope-intercept form of a line, slope formula, and Pythagorean theorem

CONTENT & SKILL FOCUS

NUMBER SENSE

STATISTICS, DATA, ANALYSIS, AND PROBABILITY

ALGEBRA AND FUNCTIONS

MEASUREMENT AND GEOMETRY

MATHEMATICAL REASONING

ALGEBRA I

REQUIRED RESOURCES

Some assignments in this course require the use of resources that must be supplied by the user. These outside resources are listed below by assignment.

Essentials of Mathematics		
Unit	Assignment Title	Supply List
All	All Assignments	<ul style="list-style-type: none"> • scratch paper • notebook • pencil

		<ul style="list-style-type: none">• calculator (if permitted during official exam–It's suggested that students obtain the exact calculator permitted and use it for practice.)
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GRADING INFORMATION

GRADING COMPONENTS

Lessons	40%
Quizzes	30%
Tests	30%

GRADING SCALE

100-90	A
89-80	B
79-70	C
69-60	D
Below 60	F