

Course Description – Honors CC Math 7 and Regular Core CC Math 7

Honors and Common Core Math 7

Student Edition: CA Go Math: Middle School Grade 7 (Houghton Mifflin Harcourt)

Course Description: CC Math 7 focuses on **The Number System** (apply and extend previous understandings of operations with fractions to add, subtract, multiply, and divide rational numbers), **Ratios and Proportional Relationships** (analyze proportional relationships and use them to solve real-world and mathematical problems), **Expressions, Equations, and Inequalities** (use properties of operations to generate equivalent expressions and solve real-life and mathematical problems using numerical and algebraic expressions and equations), **Geometry** (draw, construct, and describe geometrical figures and describe the relationships between them and solve real-life and mathematical problems involving angle measure, area, surface area, and volume), **Statistics & Probability** (use random sampling to draw inferences about a population, draw informal comparative inferences about two populations, and investigate chance processes and develop, use, and evaluate probability models).

I. UNIT 1: The Number System

- a. Module 1 – Adding and Subtracting Integers
 - i. 1.1 – Adding Integers with the Same Sign
 - ii. 1.2 – Adding Integers with Different Signs
 - iii. 1.3 – Subtracting Integers
 - iv. 1.4 – Applying Addition and Subtraction of Integers
- b. Module 2 – Multiplying and Dividing Integers
 - i. 2.1 – Multiplying Integers
 - ii. 2.2 – Dividing Integers
 - iii. 2.3 – Applying Integer Operations
- c. Module 3 – Rational Numbers
 - i. 3.1 – Rational Numbers and Decimals
 - ii. 3.2 – Adding Rational Numbers
 - iii. 3.3 – Subtracting Rational Numbers
 - iv. 3.4 – Multiplying Rational Numbers
 - v. 3.5 – Dividing Rational Numbers
 - vi. 3.6 – Applying Rational Number Operations

II. UNIT 2: Ratios and Proportional Relationships

- a. Module 4 – Ratios and Proportionality
 - i. 4.1 – Unit Rates
 - ii. 4.2 – Constant Rates of Change
 - iii. 4.3 – Proportional Relationships and Graphs
- b. Module 5 – Proportions and Percent
 - i. 5.1 – Percent Increase and Decrease
 - ii. 5.2 – Rewriting Percent Expressions
 - iii. 5.3 – Applications of Percent

III. UNIT 3: Expressions, Equations, and Inequalities

- a. Module 6 – Expressions and Equations
 - i. 6.1 – Algebraic Expressions
 - ii. 6.2 – One-Step Equations with Rational Coefficients
 - iii. 6.3 – Writing Two-Step Equations
 - iv. 6.4 – Solving Two-Step Equations
- b. Module 7 – Inequalities
 - i. 7.1 – Writing and Solving One-Step Inequalities
 - ii. 7.2 – Writing Two-Step Inequalities
 - iii. 7.3 – Solving Two-Step Inequalities

IV. UNIT 4: Geometry

- a. Module 8 – Modeling Geometric Figures
 - i. 8.1 – Similar Shapes and Scale Drawings
 - ii. 8.2 – Geometric Drawings
 - iii. 8.3 – Cross Sections
 - iv. 8.4 – Angle Relationships
- b. Module 9 – Circumference, Area, and Volume
 - i. 9.1 – Circumference
 - ii. 9.2 – Area of Circles
 - iii. 9.3 – Area of Composite Figures
 - iv. 9.4 – Solving Surface Area Problems
 - v. 9.5 – Solving Volume Problems

V. UNIT 5: Statistics

- a. Module 10 – Random Samples and Populations
 - i. 10.1 – Populations and Samples
 - ii. 10.2 – Making Inferences from a Random Sample
 - iii. 10.3 – Generating Random Samples
- b. Module 11 – Analyzing and Comparing Data
 - i. 11.1 – Comparing Data Displayed in Dot Plots
 - ii. 11.2 – Comparing Data Displayed in Box Plots
 - iii. 11.3 – Using Statistical Measures to Compare Population

VI. UNIT 6: Probability

- a. Module 12 – Experimental Probability
 - i. 12.1 – Probability
 - ii. 12.2 – Experimental Probability of Simple Events
 - iii. 12.3 – Experimental Probability of Compound Events
 - iv. 12.4 – Making Predictions with Experimental Probability
- b. Module 13 – Theoretical Probability and Simulations
 - i. 13.1 – Theoretical Probability of Simple Events
 - ii. 13.2 – Theoretical Probability of Compound Events
 - iii. 13.3 – Making Predictions with Theoretical Probability
 - iv. 13.4 – Using Technology to Conduct a Simulation