

Math 7/8 Accelerated Pathway for Grade 7

Unit 1: CC3 Chapters 1 and 2 and CC2 Chapter 6

CC3 Chapter 1 Problem Solving

Section 1.1

- 1.1.2 Finding and Generalizing Patterns Using the xy -Coordinate Plane
- 1.1.4 Collecting, Organizing, and Analyzing Data

CC3 Chapter 2 Simplifying with Variables

Section 2.1

- 2.1.1 Exploring Variables and Expressions
- 2.1.2 Simplifying Expressions by Combining Like Terms
- 2.1.3 Writing Algebraic Expressions
- 2.1.4 Using Zero to Simplify Algebraic Expressions
- 2.1.5 Using Algebra Tiles to Simplify Algebraic Expressions
- 2.1.6 Using Algebra Tiles to Compare Expressions
- 2.1.7 Simplifying and Recording Work

CC2 Chapter 6 Solving Inequalities and Equations

Section 6.1

- 6.1.3 One Variable Inequalities
- 6.1.4 Solving One Variable Inequalities

CC3 Chapter 2 Simplifying with Variables

Section 2.1

- 2.1.8 Using Algebra Tiles to Solve for x
- 2.1.9 More Solving Equations

Unit Closure

Unit 2: CC3 Chapters 3 and 4

CC3 Chapter 3 Graphs and Equations

Section 3.2

- 3.2.1 Solving Equations and Checking Solutions
- 3.2.2 Determining the Number of Solutions
- 3.2.3 Solving Equations to Solve Problems
- 3.2.4 More Solving Equations to Solve Problems
- 3.2.5 Distributive Property Equations

CC3 Chapter 4 Multiple Representations

Section 4.1

- 4.1.2 Seeing Growth in Different Representations
- 4.1.3 Connecting Linear Rules and Graphs
- 4.1.4 $y = mx + b$
- 4.1.5 Checking the Connections
- 4.1.6 Graphing a Line Without an $x \rightarrow y$ Table
- 4.1.7 Completing the Web

Unit Closure

Unit 3: CC3 Chapter 5

CC3 Chapter 5 Systems of Equations

Section 5.1

- 5.1.1 Working with Multi-Variable Equations
- 5.1.2 Solving Equations with Fractions

Section 5.2

- 5.2.1 Introduction to Systems of Equations
- 5.2.2 Writing Rules from Word Problems
- 5.2.3 Solving Systems Algebraically
- 5.2.4 Strategies for Solving Systems

Unit Closure

- 5.3 Mid-Course Reflection Activities

Unit 4: CC2 Chapter 7

CC2 Chapter 7 Proportions and Percents

Section 7.1

- 7.1.1 Distance, Rate, and Time
- 7.1.2 Scaling Quantities
- 7.1.3 Solving Problems Involving Percents
- 7.1.4 Equations with Fraction and Decimal Coefficients
- 7.1.5 Creating Integer Coefficients
- 7.1.6 Creating Integer Coefficients Efficiently
- 7.1.7 Percent Increase and Decrease
- 7.1.8 Simple Interest

Section 7.2

- 7.2.1 Finding Missing Information in Proportional Relationships
- 7.2.2 Solving Proportions

Unit Closure

Unit 5: CC2 Chapter 8

CC2 Chapter 8 Statistics and Angle Relationships

Section 8.1

- 8.1.1 Measurement Precision
- 8.1.2 Comparing Distributions

Section 8.2

- 8.2.1 Representative Samples
- 8.2.2 Inference from Random Samples

Section 8.3

- 8.3.1 Introduction to Angles
- 8.3.2 Classifying Angles
- 8.3.3 Constructing Shapes
- 8.3.4 Building Triangles

Unit Closure

Unit 6: CC2 Chapter 9

CC2 Chapter 9 Circles and Volume

Section 9.1

- 9.1.1 Circumference, Diameter, and Pi
- 9.1.2 Area of Circles
- 9.1.3 Area of Composite Shapes

Section 9.2

- 9.2.1 Surface Area and Volume
- 9.2.2 Cross Sections
- 9.2.3 Volume of a Prism
- 9.2.4 Volume of Non-Rectangular Prisms

Unit Closure

Section 9.3

- 9.3.1 Volume and Scaling
- 9.3.2 Using Multiple Math Ideas to Create an Interior Design
- 9.3.3 Applying Ratios

Unit 7: CC3 Chapter 6

CC3 Chapter 6 Transformations and Similarity

Section 6.1

- 6.1.1 Rigid Transformations
- 6.1.2 Rigid Transformations on a Coordinate Graph
- 6.1.3 Describing Transformations

Section 6.2

- 6.2.1 Multiplication and Dilation
- 6.2.2 Dilations and Similar Figures
- 6.2.3 Identifying Similar Shapes
- 6.2.4 Similar Figures and Transformations
- 6.2.5 Working With Corresponding Sides
- 6.2.6 Solving Problems Involving Similar Shapes

Unit Closure

Unit 8: CC3 Chapter 7

CC3 Chapter 7 Slope and Association

Section 7.1

- 7.1.1 Circle Graphs
- 7.1.2 Organizing Data in a Scatterplot
- 7.1.3 Identifying and Describing Association

Section 7.2

- 7.2.1 $y = mx + b$ Revisited
- 7.2.2 Slope
- 7.2.3 Slope in Different Representations
- 7.2.4 More About Slope
- 7.2.5 Proportional Equations

Section 7.3

- 7.3.1 Using Equations to Make Predictions
- 7.3.2 Describing Association Fully
- 7.3.3 Association Between Categorical Variables

Unit Closure

Unit 9: CC3 Chapter 8

CC3 Chapter 8 Exponents and Functions

Section 8.1

- 8.1.1 Patterns of Growth in Tables and Graphs
- 8.1.2 Compound Interest
- 8.1.3 Linear and Exponential Growth

Section 8.2

- 8.2.1 Exponents and Scientific Notation
- 8.2.2 Exponent Rules
- 8.2.3 Negative Exponents
- 8.2.4 Operations with Scientific Notation

Section 8.3

- 8.3.1 Functions in Graphs and Tables

Unit Closure

Unit 10: CC3 Chapter 9

CC3 Chapter 9 Angles and the Pythagorean Theorem

Section 9.1

- 9.1.1 Parallel Line Angle Pair Relationships
- 9.1.2 Finding Unknown Angles in Triangles
- 9.1.3 Exterior Angles in Triangles
- 9.1.4 AA Triangle Similarity

Section 9.2

- 9.2.1 Side Lengths and Triangles
- 9.2.2 Pythagorean Theorem
- 9.2.3 Understanding Square Root
- 9.2.4 Real Numbers
- 9.2.5 Applications of the Pythagorean Theorem
- 9.2.6 Pythagorean Theorem in Three Dimensions
- 9.2.7 Pythagorean Theorem Proofs

Unit Closure

Unit 11: CC3 Chapter 10

CC3 Chapter 10 Surface Area and Volume

Section 10.1

- 10.1.1 Cube Roots
- 10.1.2 Surface Area and Volume of a Cylinder
- 10.1.3 Volumes of Cones and Pyramids
- 10.1.4 Volume of a Sphere
- 10.1.5 Applications of Volume

Unit Closure

Course Closure

- 10.2.1 Indirect Measurement
- 10.2.2 Finding Unknowns
- 10.2.3 Analyzing Data to Identify a Trend