

Prep for Mathematics 8		Scope and Sequence
Unit	Lesson	Objectives
Diagnostic PreTest		
TEST		
Proportional Relationships		
Graphing Proportional Relationships		
		Graph a proportional relationship from tables and verbal descriptions.
		Identify the meanings of points on the graph of a proportional relationship and determine the characteristics of the graph of a proportional relationship.
Identifying Proportional Relationships		
		Analyze data in tables and graphs to determine if the given relationships are proportional.
Equations of Proportional Relationships		
		Identify the constant of proportionality from an equation.
		Write an equation to represent a proportional relationship.
		Translate between tables, graphs, and equations to represent proportional relationships.
Proportions		
		Write a proportion to represent a given relationship.
		Solve proportion problems by using equivalent fractions.
		Solve proportion problems involving complex fractions.
Cross Products		
		Use cross products to solve for an unknown quantity in a proportion problem.
		Describe why using cross products is a valid method for solving proportions.
		Use cross products to solve real-world proportion problems.

Unit Lesson**Objectives****Rational Numbers**Solving Problems Involving
Decimals

Solve real-world and mathematical problems involving addition, subtraction, multiplication, and division with decimals.

Adding and Subtracting Fractions

Use visual representations to add and subtract fractions.

Estimate sums and differences of fractions.

Describe real-world contexts for adding and subtracting fractions.

Multiplying Fractions

Use the rules of signed numbers and visuals to multiply fractions.

Apply properties of operations to multiply fractions.

Estimate products of fractions.

Describe real-world contexts for multiplying fractions.

Dividing Fractions

Use the rules of signed numbers to divide fractions.

Apply properties of operations to divide fractions.

Estimate quotients of fractions.

Describe real-world contexts for dividing fractions.

Solving Problems Involving
Rational Numbers

Solve real-world and mathematical problems involving addition, subtraction, multiplication, and division with rational numbers.

Integers

Unit Lesson**Objectives**

Integers and the Number Line

Represent and compare integers on vertical and horizontal number lines.

Find the absolute value of an integer.

Describe real-world situations that can be represented by integers, including where opposite quantities combine to make 0.

Adding Integers

Use visual representations to add integers.

Apply properties of operations to add integers.

Describe real-world contexts for adding integers.

Subtracting Integers

Use visual representations to subtract integers.

Use additive inverse and properties of operations to subtract integers.

Describe real-world contexts for subtracting integers.

Multiplying Integers

Use visual representations to multiply integers.

Apply properties of operations and rules of signed numbers to multiply integers.

Describe real-world contexts for multiplying integers.

Dividing Integers

Use visual representations to divide integers.

Apply properties of operations and rules of signed numbers to divide integers.

Describe real-world contexts for dividing integers.

Expressions

Understanding Expressions

Unit Lesson**Objectives**

Write and evaluate numerical expressions.

Identify the parts of an algebraic expression.

Writing and Evaluating Expressions

Write expressions to represent real-world situations.

Evaluate expressions for real-world situations.

Using Properties to Simplify Expressions

Simplify expressions using properties of operations and combining like terms.

Factoring Expressions

Find the greatest common factor of an algebraic expression.

Rewrite algebraic expressions by factoring.

Equations and Inequalities

Writing Equations

Write equations from words.

Write equations to represent real-world situations.

Addition and Subtraction Equations

Solve one-step addition and subtraction equations.

Solve one-step addition and subtraction equations in the real world and interpret the results.

Multiplication and Division Equations

Solve one-step multiplication and division equations.

Write and solve one-step multiplication and division equations in the real world and interpret the results.

Solving Two-Step Equations

Unit Lesson**Objectives**

Solve two-step equations.

Solve two-step equations in the real world and interpret the results.

Angle Relationships

Identify supplementary, complementary, vertical, and adjacent angles.

Use special relationships between angle pairs to find an unknown angle measure.

Finding Unknown Angle Measures

Use angle relationships to find unknown measures in a figure.

Diagnostic PostTest

TEST