

Options FRMS Math 7A 2020		Scope and Sequence
Unit	Lesson	Objectives
Operations with Integers		
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.		
Using Properties of Operations		
Apply the associative and commutative properties of operations to simplify expressions.		
Apply the distributive property to rewrite and evaluate expressions.		
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		

Unit Lesson**Objectives**

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.

Operations with Integers

Solve integer problems involving a variety of operations while applying the properties of operations.

Unit Test

Operations with Rational Numbers

Rational Numbers

Represent positive and negative rational numbers on vertical and horizontal number lines.

Write a rational number as a decimal that eventually terminates or repeats.

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

Adding and Subtracting
Decimals

Use visual representations to add and subtract decimals.

Apply properties of operations to add and subtract decimals.

Estimate sums and differences of decimals.

Describe real-world contexts for adding and subtracting decimals.

Multiplying Decimals

Use the rules of signed numbers to multiply decimals.

Apply properties of operations to multiply decimals.

Estimate products of decimals.

Describe real-world contexts for multiplying decimals.

Unit	Lesson	Objectives
	Dividing Decimals	<p>Use the rules of signed numbers to divide decimals.</p> <p>Apply properties of operations to divide decimals.</p> <p>Estimate quotients of decimals.</p> <p>Describe real-world contexts for dividing decimals.</p>
	Adding and Subtracting Fractions	<p>Use visual representations to add and subtract fractions.</p> <p>Estimate sums and differences of fractions.</p> <p>Describe real-world contexts for adding and subtracting fractions.</p>
	Multiplying Fractions	<p>Use the rules of signed numbers and visuals to multiply fractions.</p> <p>Apply properties of operations to multiply fractions.</p> <p>Estimate products of fractions.</p> <p>Describe real-world contexts for multiplying fractions.</p>
	Dividing Fractions	<p>Use the rules of signed numbers to divide fractions.</p> <p>Apply properties of operations to divide fractions.</p> <p>Estimate quotients of fractions.</p> <p>Describe real-world contexts for dividing fractions.</p>
	Solving Problems Involving Rational Numbers	<p>Solve real-world and mathematical problems involving addition, subtraction, multiplication, and division with rational numbers.</p>

Unit	Lesson	Objectives
	Performance Task: Track and Field Day	
	Unit Test	
Proportional Relationships		
	Unit Rates	
		Use appropriate language to describe ratios and unit rates.
		Use a given unit rate and proportional reasoning to complete a table.
		Use a given unit rate and proportional reasoning to solve problems.
	Finding a Constant of Proportionality	
		Find the constant of proportionality from verbal descriptions, tables, graphs, and diagrams.
	Applications of Unit Rates	
		Determine a unit rate from a real-world context.
		Apply unit rates to solve for an unknown in real-world problems.
		Use unit rates to make comparisons.
	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	

Unit Lesson**Objectives**

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.

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.

Scale Factor

Use a given scale factor to find an unknown length on a reduction or enlargement.

Use a given scale factor to find an unknown length on an original.

Solving Scale Problems Using Proportions

Use proportional relationships to solve problems involving scale drawings.

Scale Drawings and Area

Compute areas of figures from scale drawings.

Changing a Scale

Solve problems involving reproducing a scale drawing using a different scale.

Unit Test

Percents

Introduction to Percents

Identify an equivalent percent, fraction, or decimal represented in multiple forms.

Create diagrams to solve for a percent in real-world problems.

Find the percent of a number using the fraction or decimal equivalent form of a percent to write an expression from a

Unit Lesson**Objectives**

diagram.

Finding a Percent of a Number

Solve problems by finding the percent of a number, including amounts of gratuity and tax, by using diagrams and expressions.

Find the percent of a number when the percent is more than 100.

Finding a Total Amount

Solve for the total amount in gratuity, tax, or commission problems by using diagrams and expressions, understanding that it is a process of adding to the original amount.

Find the total amount, including discounts, understanding that it is a process of subtracting from the original amount.

Markups and Markdowns

Solve real-world problems involving a markup or markdown relating each as adding or subtracting from the original.

Finding an Original Amount

Find the original amount in real-world percent problems involving gratuity, tax, commission, markup, discount, or markdown using diagrams and expressions.

Simple Interest

Calculate simple interest, principal, time, and total using the simple interest formula.

Apply the simple interest formula in the context of a word problem.

Percent Increase and Decrease

Find the percent change by using the ratio of the change in quantity to the original amount.

Use percent increase and decrease to solve real-world problems.

Performance Task: Trendy
Teens

Unit Test

Cumulative Exam

Unit	Lesson	Objectives
	Cumulative Exam Review	
	Cumulative Exam	