

Unit Lesson**Objectives****Understanding Fractions and Decimals**

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.

Prime Numbers and Prime Factorization

List the factors of a number.

Identify a number as prime or composite.

Represent a number as the product of its prime factors, using exponents to show repeated factors.

Factors and Multiples

Determine the greatest common factor of two numbers.

Determine the least common multiple of two numbers.

Apply greatest common factors and least common multiples to solve real-world problems.

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.

Unit Test

Geometry

Area and Perimeter in Context

Solve problems in context using geometric models

Unit Lesson**Objectives**

Distinguish between problems requiring area and perimeter formulas

Perimeter

Recognize perimeter as a geometric property of plane figures

Write formulas for and calculate perimeters of plane figures

Use unit analysis to solve problems involving perimeter

Write and use formulas for circumference

Perimeter of Composite Figures

Calculate perimeters of many-sided plane figures using combinations of formulas

Use unit analysis to solve problems involving perimeters

Area of Parallelograms

Use the formula $A = bh$ to find the area of a parallelogram.

Solve real-world problems involving the area of parallelograms.

Area of Triangles

Calculate the area of triangles using the formula $A = \frac{1}{2}bh$.

Solve real-world problems involving the area of triangles.

Unit Test

Variables and Expressions

Expressions with Unknowns

Read and write algebraic expressions.

Use algebraic expressions to model real-world situations involving addition.

Use algebraic expressions to model real-world situations involving subtraction.

Writing and Evaluating
Expressions

Unit Lesson**Objectives**

Write algebraic expressions containing one operation.

Evaluate algebraic expressions containing one operation.

Writing Equations to Find Unknowns

Differentiate between expressions and equations.

Translate simple word problems into one-step equations.

Use substitution to determine whether a given number is a solution of a one-step equation.

Unit Test

Dividing Fractions

Dividing a Fraction by a Whole Number

Divide a fraction by a whole number equal to the fraction's denominator in real-world situations.

Divide a fraction by a whole number using an equivalent fraction in real-world situations.

Using Visual Models in Fraction Division

Use models to divide a whole number by a whole number.

Use models to divide a whole number by a fraction.

Dividing a Fraction by a Fraction

Use models to divide a fraction by a fraction.

Finding a Rule for Dividing Fractions

Use the standard algorithm to divide fractions.

Fraction Multiplication and Division

Solve real-world problems using fraction multiplication or division.

Unit Lesson

Objectives

Unit Test