

Chapter One: The Real Number System

The Big Idea: Real numbers are represented on an infinite line and are used to count, measure, estimate, or approximate quantities.

Chapter Two: Rational Number Operations

The Big Idea: The operations of addition, subtraction, multiplication, and division can be applied to rational numbers including negative numbers.

Chapter Three: Algebraic Expressions

The Big Idea: Algebraic expressions containing rational numbers and several variables can be simplified, expanded, or factored to write equivalent expressions

Chapter Four: Algebraic Equations and Inequalities

The Big Idea: Algebraic equations and inequalities can be used to model mathematical or real-world situations and to find the value of the variables.

Chapter Five: Direct and Inverse Proportion

The Big Idea: Two quantities that are in a proportional relationship can be used to solve real-world and mathematical problems.

Chapter Six: Angle Properties and Straight Lines

The Big Idea: Angles formed on a straight line, or by parallel lines and a transversal, have special properties that are useful in solving problems

Chapter Seven: Geometric Construction

The Big Idea: Triangles and quadrilateral can be constructed using a compass, a protractor to draw perpendicular line segments

Chapter Eight: Volume and Surface Area of Solids

The Big Idea: Solids such as pyramids, cylinders, cones, and spheres are all around you. You can find their surface areas and volumes to solve real-world problems.

Chapter Nine: Statistics

The Big Idea: Measures of tendency can be used to estimate the center of data. Measures of variation estimate how far data are spread from the center. These measures are used to draw conclusions about populations.

Chapter Ten: Probability

The Big Idea: Events happen around you every day, some more likely than others. You can use probability to describe how likely an event is to occur.