

SIXTH GRADE MATHEMATICS

Apply and Extend Understanding of Operations with Rational Numbers

- Apply previous understanding of all four operations with rational numbers
- Apply understanding of all four operations with the dividing of fractions by fractions
- Understand integers via opposite signs, value, and direction; number line models; and absolute value

Understand Ratio Concepts and Apply Proportional Reasoning

- Understand ratio concepts
- Understand the concept of unit rate
- Use multiple representations to solve ratio/rate problems (tables of equivalent ratios, equations, and plot values on a coordinate plane in all four quadrants)

Simplify Expressions and Solve Simple One-Variable Equations and Inequalities

- Apply and extend previous understandings of arithmetic to using variables and generating equivalent algebraic expressions
- Reason about and formally solve simple one-variable equations and inequalities, for example: $(x+q<r)$

Simplify Expressions and Solve Simple One-Variable Equations and Inequalities

- Solve simple problems using numerical and algebraic expressions
- Represent and analyze quantitative relationships between dependent and independent variables and graph the relationship on a coordinate plane

Mathematical Practices

- Make sense of problems and persevere in solving them
- Reason abstractly and quantitatively
- Construct viable arguments and critique the reasoning of others
- Model with mathematics
- Use appropriate tools strategically
- Attend to precision
- Look for and make use of structure
- Look for and express regularity in repeated reasoning