Mastering 6th Grade Algebra: A Comprehensive Guide

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Publisher: readolla.com

Published date: 2025

Here is the translation of the given text into English:

Math Tutorials for 6th Grade Algebra by Halina Sabok

Introduction to Algebra

- **Chapter 1: Numbers and Operations**
    - 1.1: Introduction to Real Numbers
    - 1.2: Properties of Real Numbers
    - 1.3: Operations with Real Numbers
    - 1.4: Order of Operations
    - 1.5: Simplifying Expressions
- **Chapter 2: Variables and Expressions**
    - 2.1: Introduction to Variables
    - 2.2: Writing Expressions
    - 2.3: Evaluating Expressions
    - 2.4: Combining Like Terms
    - 2.5: Simplifying Algebraic Expressions

Equations and Inequalities

- **Chapter 3: Linear Equations**
    - 3.1: Introduction to Linear Equations
    - 3.2: Solving Linear Equations
    - 3.3: Graphing Linear Equations
    - 3.4: Solving Linear Inequalities
    - 3.5: Systems of Linear Equations
- **Chapter 4: Quadratic Equations**
    - 4.1: Introduction to Quadratic Equations
    - 4.2: Solving Quadratic Equations by Factoring
    - 4.3: Solving Quadratic Equations by the Quadratic Formula
    - 4.4: Solving Quadratic Inequalities
    - 4.5: Systems of Quadratic Equations

Functions

- **Chapter 5: Introduction to Functions**

- 5.1: Introduction to Functions
- 5.2: Domain and Range of a Function
- 5.3: Evaluating Functions
- 5.4: Graphing Functions
- 5.5: Composition of Functions

- **Chapter 6: Linear and Quadratic Functions**

  - 6.1: Linear Functions
  - 6.2: Quadratic Functions
  - 6.3: Piecewise Functions
  - 6.4: Absolute Value Functions
  - 6.5: Polynomial Functions

Polynomials and Rational Expressions

- **Chapter 7: Polynomials**

  - 7.1: Introduction to Polynomials
  - 7.2: Adding and Subtracting Polynomials
  - 7.3: Multiplying Polynomials
  - 7.4: Dividing Polynomials
  - 7.5: Synthetic Division

- **Chapter 8: Rational Expressions**

  - 8.1: Introduction to Rational Expressions
  - 8.2: Simplifying Rational Expressions
  - 8.3: Adding and Subtracting Rational Expressions
  - 8.4: Multiplying Rational Expressions
  - 8.5: Dividing Rational Expressions

Exponents and Logarithms

- **Chapter 9: Exponents**

  - 9.1: Introduction to Exponents
  - 9.2: Properties of Exponents
  - 9.3: Simplifying Expressions with Exponents
  - 9.4: Exponent Rules
  - 9.5: Scientific Notation

- **Chapter 10: Logarithms**

  - 10.1: Introduction to Logarithms
  - 10.2: Properties of Logarithms
  - 10.3: Simplifying Logarithmic Expressions
  - 10.4: Logarithmic Equations
  - 10.5: Logarithmic Graphs

Systems of Equations and Inequalities

- **Chapter 11: Systems of Linear Equations**
    - 11.1: Introduction to Systems of Linear Equations
    - 11.2: Substitution Method
    - 11.3: Elimination Method
    - 11.4: Graphical Method
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- **Chapter 12: Systems of Quadratic Equations**
    - 12.1: Introduction to Systems of Quadratic Equations
    - 12.2: Substitution Method
    - 12.3: Elimination Method
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Review and Practice

- **Chapter 13: Review of Algebra**
    - 13.1: Review of Key Concepts
    - 13.2: Practice Problems
    - 13.3: Mixed Review
    - 13.4: Assessment
    - 13.5: Final Review

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