

Arithmetic / Prealgebra Playlist with Links to Text

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Module 1: Whole Numbers

[Textbook Section 1.1: Introduction to Whole Numbers](#)

Video Lesson

1. [Whole Numbers: Place Value and Expanded Form](#)

Video Examples

1. [Examples: Determining Place Value](#)
2. [Example: Write a Whole Number in Digits from Words](#)
3. [Examples: Rounding Whole Numbers](#)

[Textbook Section 1.2: Adding and Subtracting Whole Numbers](#)

Video Lesson

1. [Adding Whole Numbers](#)
2. [Subtracting Whole Numbers](#)
3. [Problem Solving: Adding and Subtracting Whole Numbers](#)
4. [Perimeter and Area Formulas](#)

Video Examples

1. [Example: Adding Whole Numbers](#)
2. [Example: Subtracting Whole Numbers](#)
3. [Ex: Determine the Perimeter of a Rectangle Involving Whole Numbers](#)
4. [Ex: Find the Perimeter of an L-shaped Polygon Involving Whole Numbers](#)

[Textbook Section 1.3: Multiplication and Division of Whole Numbers](#)

Video Lessons

1. [Multiplying Whole Numbers](#)
2. [Dividing Whole Numbers](#)
3. [Multiplying and Dividing Involving Zero](#)
4. [Perimeter and Area Formulas](#)

Video Examples

1. [Example: Multiplying Whole Numbers](#)
2. [Ex: Determine the Area of a Rectangle Involving Whole Numbers](#)
3. [Example: Determining the Square Footage of a House](#)
4. [Example: Dividing Whole Numbers without a Remainder](#)
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[Textbook Section 1.4: Prime Factorization](#)

Video Lessons

1. [Divisibility Rules](#)

2. [Factors](#)
3. [Prime Factorization](#)

Video Examples

1. [Example: Write Repeated Multiplication in Exponential Form](#)
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6. [Ex 1: Determine Factors of a Number](#)
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[Textbook Section 1.5: Order of Operations](#)

Video Lessons

1. [Order of Operations with Whole Numbers](#)
2. [Introduction to the Distributive Property](#)
3. [Using the Distributive Property to Multiply Quickly](#)

Video Examples

1. [Example 1: Evaluate An Expression Using The Order of Operations](#)
2. [Example 2: Evaluate An Expression Using The Order of Operation](#)
3. [Example 3: Evaluate An Expression Using The Order of Operation](#)

[Textbook Section 1.6: Solving Equations by Addition and Subtraction](#)

Video Lesson

[Solving One Step Equations By Addition and Subtraction](#)

Video Examples

1. [Ex: Solve One Step Equations By Adding and Subtracting \(Variable on Left Side\)](#)
2. [Ex: Solve One Step Equations By Adding and Subtracting \(Variable on Right Side\)](#)

[Textbook Section 1.7: Solving Equations by Multiplication and Division](#)

Video Lesson

[Solving One Step Equations By Multiplication and Division](#)

Video Examples

1. [Ex: Solve One Step Equations By Multiplying and Dividing \(Variable on Left Side\)](#)
2. [Ex: Solve One Step Equations By Multiplying and Dividing \(Variable on Right Side\)](#)

[Textbook Section 1.8: Mean, Median, and Mode](#)

Video Lesson

[Mean, Median, and Mode](#)

Video Examples

1. [Determine the Mean of a Data Set](#)

2. Determine the Median of a Data Set
3. Determine the Mode of a Data Set

Module 2: The Integers

[Textbook Section 2.1: An Introduction to Integers](#)

Video Lesson

[Introduction to Integers](#)

Video Examples

1. Ex: Determine the Opposites of Integers
2. Ex: Simplifying the Opposites of Negatives Integers
3. Ex: Comparing Integers Using Inequalities
4. Ex: Comparing Absolute Value of Integers
5. Ex: Order Integers from Least to Greatest
6. Ex: Integer Application: Feet Below Sea Level
7. Ex: Integer Application: Overdrawn Checking Account

[Textbook Section 2.2: Adding Integers](#)

Video Lessons

1. [Adding Integers Using Algebra Tiles](#)
2. [Adding Integers Using a Number Line](#)
3. [Adding Integers Using the Money Analogy](#)
4. [Adding Integers Using Formal Rules](#)
5. [Adding Integers - long version](#)

Video Examples

1. Ex 1: [Adding Integers](#)
2. Ex 2: [Adding Integers](#)
3. Ex 3: [Adding Integers \(Two Digit Integers\)](#)
4. Ex: [Adding Three or More Integers](#)
5. Ex: [Evaluate Expressions Involving Integer Addition](#)
6. Examples: [Evaluating Negative Numbers Raised to Powers](#)
7. Example: [Problem Solving Using Integers \(Stock Gain/Loss\)](#)

[Textbook Section 2.3: Subtracting Integers](#)

Video Lessons

1. [Subtracting Integers – The Basics](#)
2. [Subtracting Integers](#)

Video Examples

1. Ex 1: [Subtracting Integers](#)
2. Ex 2: [Subtracting Integers \(Two Digit Integers\)](#)
3. Ex 1: [Evaluate Expressions Involving Integer Subtraction](#)
4. Ex 2: [Evaluate Expressions Involving Integer Subtraction](#)

[Textbook Section 2.4: Multiplying and Dividing Integers](#)

Video Lessons

1. [Multiplying and Dividing Integers – long version](#)
2. [Multiplying Integers – The Basics](#)
3. [Dividing Integers – The Basics](#)

Video Examples

1. [Ex: Multiplying Integers](#)
2. [Ex: Multiplying Three or More Integers](#)
3. [Examples: Evaluating Negative Numbers Raised to Powers](#)
4. [Ex: Dividing Integers](#)
5. [Ex: Evaluate an Expression Involving Integer Operations](#)

[Textbooks Section 2.5: Order of Operations with Integers](#)

Video Lessons

1. [Evaluating Negative Numbers Raised to Powers](#)
2. [Order of Operations with Integers](#)

Video Examples

1. [Ex: Simplify an Expression With Integers Using the Order of Operations](#)
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[Textbook Section 2.6: Solving Equations Involving Integers](#)

Video Lessons

1. [Solving Equations by Addition and Subtraction](#)
2. [Solving Equations by Multiplying and Dividing](#)
3. [Solving One Step Equations](#)
4. [Solving Two Step Equations](#)

Video Examples

1. [Ex: Solving One Step Equation by Add/Subtracting Integers \(Var on Left\)](#)
2. [Ex: Solving One Step Equation by Add/Subtracting Integers \(Var on Right\)](#)
3. [Ex: Solving One Step Equation by Mult/Div. Integers \(Var on Left\)](#)
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5. [Ex: Solving One Step Equation in the Form: \$-x = a\$](#)
6. [Ex 1: Solving Two-Step Equations Using Integers](#)
7. [Ex 2: Solving Two-Step Equations Using Integers](#)

Module 3: The Fundamentals of Algebra

[Textbook Section 3.1: Mathematical Expressions](#)

Video Lesson

[Introduction to Variables and Variable Expressions](#)

Video Examples

1. Examples: Writing Variable Expressions
2. Ex 1: Writing Basic Algebraic Expressions
3. Ex 2: Writing Basic Algebraic Expressions
4. Ex 3: Write Algebraic Expressions

[Textbook Section 3.2: Evaluating Algebraic Expressions](#)

Video Lesson

[Evaluating Algebraic Expressions](#)

Video Examples

1. Examples 1: Evaluating Variable Expressions
2. Examples 2: Evaluating Variable Expressions
3. Example 1: Solve a Problem using Distance = Rate x Time
4. Ex: Find the Surface Area of an Open Top Box
5. Ex: Algebraic Expression Application - Credit Card Balance

[Textbook Section 3.3: Simplifying Algebraic Expressions](#)

Video Lessons

[Introduction to the Distributive Property](#)

Video Examples

1. Ex: Simplify Variable Expressions by Multiplying
2. Ex 1: The Distributive Property
3. Ex 2: The Distributive Property

[Textbook Section 3.4: Combining Like Terms](#)

Video Lesson

[Combining Like Terms](#)

Video Examples

1. Ex 1: Combining Like Terms
2. Ex 2: Combining Like Terms
3. Ex 3: Combining Like Terms Requiring Distribution

[Textbook Section 3.5: Solving Equations Involving Integers](#)

Video Examples

1. Ex: Solve One Step Equation by Add/Subtract (Simplify 1st)
2. Ex: Solve One Step Equation by Mult/Div (Simplify 1st)

Module 4: Fractions

[Textbook Section 4.1: Equivalent Fractions](#)

Video Lessons

1. Greatest Common Factor
2. Introduction to Fractions

3. Simplifying Fractions

Examples

1. Ex: Determine the Fraction Modeled
2. Ex 1: Determine Equivalent Fractions to a Given Fraction
3. Ex 2: Determine an Equivalent Fraction with a Specific Denominator
4. Ex: Determining the Greatest Common Factor
5. Ex 1: Simplifying Fractions
6. Ex 2: Simplifying Fractions
7. Ex: Comparing Fractions with Different Denominators using Inequality Symbols

[Textbook Section 4.2: Multiplying Fractions](#)

Video Lesson

1. Multiplying Fractions - Positive Only
2. Multiplying Signed Fractions
3. Area and Perimeter Formulas

Examples

1. Example: Multiplication Involving Fractions
2. Ex: Multiplying Signed Fractions
3. Ex: Multiplying Three Fractions
4. Ex: Multiplying Fractions with Variables

[Textbook Section 4.3: Dividing Fractions](#)

Video Lesson

1. Dividing Fraction - Positive Only
2. Dividing Signed Fractions

Example Videos

1. Example 1: Division Involving Fractions
2. Example 2: Division Involving Fractions
3. Ex 1: Dividing Signed Fractions
4. Ex 2: Dividing Signed Fractions
5. Ex: Dividing Signed Fractions Containing Variables
6. Ex: Division Involving Three Fractions
7. Ex: Dividing Fractions Application

[Textbook Section 4.4: Adding and Subtracting Fractions](#)

Video Lessons

1. Adding Fractions Introduction (Positive)
2. Adding Signed Fractions
3. Subtracting Fractions Introduction - Positive Only
4. Subtracting Signed Fractions
5. Adding / Subtracting Fractions

Video Examples

1. Example: Determining the Least Common Multiple Using a List of Multiples
2. Example: Determining the Least Common Multiple Using Prime Factorization

3. Example: Ordering Fractions with Different Denominators from Least to Greatest
4. Example 1: Adding Fractions with Different Denominators
5. Example 2: Adding Fractions with Different Denominators
6. Ex 1: Adding Signed Fractions
7. Ex 2: Adding Signed Fractions
8. Example: Subtract Fractions with Unlike Denominators
9. Ex 1: Subtracting Signed Fractions
10. Ex 2: Subtracting Signed Fractions
11. Ex: Add and Subtract Fractions Containing Variables

[Textbook Section 4.5: Multiplying and Dividing Mixed Numbers](#)

Video Lessons

1. Improper Fractions and Mixed Numbers
2. Converting Between Improper Fractions and Mixed Number on the TI84
3. Multiplying and Dividing Mixed Numbers

Video Examples

1. Examples: Converting a Mixed Number to an Improper Fraction
2. Examples: Convert an Improper Fraction to a Mixed Number
3. Example 1: Multiplication Involving Mixed Numbers
4. Example 2: Multiplication Involving Mixed Numbers
5. Ex 1: Multiplying Signed Mixed Number
6. Ex 2: Multiplying Signed Mixed Number
7. Example: Division Involving Mixed Numbers
8. Ex: Dividing Signed Mixed Numbers

[Textbook Section 4.6: Adding and Subtracting Mixed Numbers](#)

Video Lessons

1. Adding Mixed Numbers
2. Subtracting Mixed Numbers
3. Multiplying and Dividing Fraction on the TI84
4. Adding and Subtracting Fractions on the TI84

Video Examples

1. Ex: Add Mixed Numbers with Like Denominators
2. Example: Adding Mixed Numbers
3. Example: Subtraction of Mixed Numbers
4. Example: Subtract Mixed Numbers Using Improper Fractions

[Textbook Section 4.7: Order of Operations with Fractions](#)

Video Lessons

1. Order of Operations Involving Fractions
2. Order of Operations Involving Mixed Numbers

Video Examples

1. Ex: Fractions Raised to a Powers
2. Ex: Negative Fractions Raised to Powers
3. Ex 1: Signed Fractions: Order of Operations
4. Ex 2: Signed Fractions: Order of Operations

5. Ex 3: Signed Fractions: Order of Operations
6. Ex 4: Signed Fractions: Order of Operations
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9. Ex: Evaluate a Complex Fraction
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[Textbook Section 4.8: Solving Equations with Fractions](#)

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1. Solving One Step Equations Involving Fractions

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1. Ex: Solve One Step Equations With Fraction by Adding or Subtracting
2. Ex: Solve One Step Equations With Fraction by Multiplying
3. Example 1: Application Involving Fraction Multiplication
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7. Example 1: Application Involving Mixed Number Multiplication (fabric cost)
8. Example 2: Application Involving Mixed Number Multiplication (recipe)
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Module 5: Decimals

[Textbook Section 5.1: Introduction to Decimals](#)

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1. Introduction to Decimal Notation

Video Examples

1. Examples: Write a Number in Decimal Notation from Words
2. Ex 1: Convert a Decimal to a Fraction
3. Ex 2: Convert a Decimal to a Fraction
4. Examples: Comparing Decimals with Inequality symbols
5. Example: Identify Decimals on the Number Line
6. Example 1: Ordering Decimals from Least to Greatest
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8. Examples: Rounding Decimals
9. Examples: Writing a Decimal as a Simplified Fraction
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[Textbook Section 5.2: Adding and Subtracting Decimals](#)

Video Lessons

1. Adding and Subtracting Decimals

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7. [Example: Using Decimals To Determine the Perimeter of a Polygon](#)
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[Textbook Section 5.3: Multiplying Decimals](#)

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[Textbook Section 5.4: Dividing Decimals](#)

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Two Methods for Converting Fractions to Decimals

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Module 6: Ratios and Proportions

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Module 7: Percentages

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