

# Fundamentals of Algebra

**Instructor:** Wanda Henderson

**Contact Information:**

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**Phone:** 207-728-3371, Ext. 303

**Text:** Pre-Algebra by Prentice-Hall, 2007

**Room:** 303

**Prerequisites:** None

**Course Objectives:** To provide the student with the necessary knowledge needed to advance to Algebra I.

**Methods of Instruction:** Warm-up problems, review of previous homework, problem solving sessions, calculator activities, in-class activities, computer activities, exit cards, and projects.

**Classroom Procedures:**

- Take out books and homework
- School bags belong under your seat
- Work on warm-up problem
- Bathroom passes will be issued when needed
- Sign out sheet on the left side of door
- Listen to announcements
- Sit quietly until teacher dismisses you

**Methods of Evaluation:**

Tests	30%
Quizzes	20%
Assignments	15%
Activities	15%
Projects	<u>20%</u>
	100%

**Extra help is available before and after school.**

**Improper Behavior:**

First offense-15 min. after school with teacher-parent notified

Second offense-30min. after school with teacher-parent notified

Third offense-referral to Principal for Sat. detention-parent notified

## 1<sup>st</sup> Quarter

### I. Algebraic Expressions and Integers

- Variables and Expressions
- The Order of Operations
- Writing and Evaluating Expressions
- Integers and Absolute Values
- Adding Integers
- Subtracting Integers
- Look for a Pattern
- Multiplying and Dividing Integers

### II. Solving One-Step Equations and Inequalities

- The Distributive Property
- Simplifying Variable Expressions
- Solving Equations by Adding or Subtracting
- Solving Equations by Multiplying or Dividing
- Guess, Check, and Revise
- Inequalities and Their Graphs
- Solving One-Step Inequalities by Adding or Subtracting
- Solving One-Step Inequalities by Multiplying or Dividing

## 2<sup>nd</sup> Quarter

### I. Decimals and Equations

- Rounding and Estimating
- Estimating Decimal Products and Quotients
- Using Formulas
- Solving Equations by Adding or Subtracting Decimals
- Solving Equations by Multiplying or Dividing Decimals

### II. Factors, Fractions, and Exponents

- Divisibility and Factors
- Exponents
- Prime Factorization and Greatest Common Factor
- Simplifying Fractions
- Solve a Simpler Problem
- Rational Numbers
- Scientific Notation

## **3<sup>rd</sup> Quarter**

### **I. Operations With Fractions**

- Comparing and Ordering Rational Numbers
- Fractions and Decimal
- Adding and Subtracting Fractions
- Multiplying and Dividing Fractions
- Work Backwards
- Solving Equations by Adding or Subtracting Fractions
- Solving Equations by Multiplying Fractions

### **II. Solving Inequalities and Inequalities**

- Solving Two-Step Equations
- Solving Multi-Step Equations
- Multi-Step Equations With Fractions and Decimals
- Write an Equation
- Solving Equations With Variables on Both Sides
- Solving Two-Step Inequalities

## **4<sup>th</sup> Quarter**

### **I. Linear Functions and Graphing**

- Relations and Functions
- Equations With Two Variables
- Slope and y-intercept

### **I. Ratios, Proportions, and Percents**

- Ratios and Unit Rates
- Proportions
- Similar Figures and Scale Drawings
- Probability
- Fractions, Decimals, and Percents
- Proportions and Percents
- Percents and Equations

