



The Correlation of PLATO Curricula to Idaho Content Standards

Mathematics – Grade 09

January 15, 2009

INTRODUCTION

PLATO Learning Inc. combines PLATO computer-assisted instruction into a flexible integrated learning system to enhance instructional effectiveness in education programs. This document identifies PLATO instructional activities that correlate to the Idaho Content Standards , Mathematics, Grade 09. URL: <http://www.sde.state.id.us/instruct/standards/>.

It is recommended that instructors review the correlation in order to fine-tune the activity to fit their educational environment. Modules may be added or removed; Web sites and offline activities may also be incorporated to enhance the learning path.

The following PLATO courseware was used in this correlation report:

- Algebra 1, Part 1**
- Algebra 1, Part 2**
- Beginning Algebra**
- Foundational Mathematics**
- Geometry 1**
- Geometry 2**
- Geometry and Measurement 1**
- Geometry and Measurement 2**
- Math Expeditions H**
- Math Expeditions I**
- Math Problem Solving**
- PLATO Course Algebra 1, Semester A**
- PLATO Course Algebra 1, Semester B**
- PLATO Course Algebra 2, Semester A**
- PLATO Course Algebra 2, Semester B**
- PLATO Course Geometry, Semester A**
- PLATO Course Geometry, Semester B**
- PLATO Course PreAlgebra, Semester A**
- PLATO Course PreAlgebra, Semester B**
- Pre-Algebra**

PLATO Learning, Inc. looks forward to supporting your initiatives in providing successful educational programs using computer-based lessons.

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Standard I: Number and Operation

Goal I.1: Understand and use numbers.

9.M.1.1.1 Apply properties of rational numbers. (347.01.b)

Foundational Math

Multiplying Whole Numbers

Multiplying by 0 through 5

PLATO Course Pre-Algebra, Semester A

Unit 1: Whole Numbers; Using the Identity Property of Addition

Unit 1: Whole Numbers; Using the Identity Property of Multiplication

Unit 1: Whole Numbers; Using the Commutative Property of Addition

Unit 1: Whole Numbers; Using the Associative Property of Addition

Unit 1: Whole Numbers; Using the Commutative Property of Multiplication

Unit 1: Whole Numbers; Using the Associative Property of Multiplication

Unit 1: Whole Numbers; Using the Distributive Property of Multiplication

Unit 2: Fractions; Finding the Reciprocal

Unit 3: Decimals; Rational and Irrational Numbers

PLATO Course Pre-Algebra, Semester B

Unit 1: Integers; The Additive Inverse of Integers

9.M.1.1.2 Use positive and negative numbers, absolute value, fractions, decimals, percentages, and scientific notation, including application in real world situations. (347.01.a)

Beginning Algebra

Math Sentences

Absolute Value

Review: Math Sentences

Algebra I, Part 1

Basic Number Ideas (Alg 1.1)

The Additive Inverse of Integers (Alg 1.1)

Algebra I, Part 2

Sets and Numbers (Alg 1.2)

Additive Inverse of an Integer (Alg 1.2)

Equations and Inequalities (Alg 1.2)

Absolute Value of a Number (Alg 1.2)

Equations with Absolute Values (Alg 1.2)

Review: Equations and Inequalities (Alg 1.2)

PLATO Course Pre-Algebra, Semester A

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Unit 1: Whole Numbers; Solving Addition and Subtraction Story Problems
Unit 1: Whole Numbers; Solving Multiplication Story Problems
Unit 2: Fractions; Solving Fraction Story Problems
Unit 3: Decimals; Rational and Irrational Numbers
Unit 3: Decimals; Solving Decimal Story Problems
Unit 4: Ratios and Proportions, Percents, and Measurement; Solving Problems with Percents

PLATO Course Pre-Algebra, Semester B

Unit 1: Integers; The Additive Inverse of Integers (Pre-AlgB)
Unit 1: Integers; Absolute Value of a Number (Pre-AlgB)
Unit 1: Integers; Exponents (Pre-AlgB)
Unit 1: Integers; Scientific Notation (Pre-AlgB)
Unit 1: Integers; Word Problems with Integers (Pre-AlgB)

9.M.1.1.3 Apply properties of exponents. (347.01.c)

Pre-Algebra

Basic Number Ideas - Pre-Algebra
Exponents - Pre-Algebra

Beginning Algebra

Sets and Numbers
Exponents - Beginning Algebra
Quotient and Power
Review: Sets and Numbers

Algebra I, Part 1

Basic Number Ideas (Alg 1.1)
Exponents: Exponential Form (Alg 1.1)
Exponents: Expanded Form (Alg 1.1)
Exponents: Product Rule (Alg 1.1)
Exponents: Power Rule (Alg 1.1)

Math Sentences (Alg 1.1)

Multiplying Monomials (Alg 1.1)
Dividing Monomials (Alg 1.1)

Algebra I, Part 2

Sets and Numbers (Alg 1.2)
Positive and Negative Exponents (Alg 1.2)
Integer Exponents and the Product Rule (Alg 1.2)
Integer Exponents and the Quotient Rule (Alg 1.2)
Integer Exponents and the Power Rule, Part 1 (Alg 1.2)



Integer Exponents and the Power Rule, Part 2 (Alg 1.2)

Review: Exponents and Radicals (Alg 1.2)

Polynomials and Factoring (Alg 1.2)

Monomial Product (Alg 1.2)

Monomial Quotient (Alg 1.2)

PLATO Course PreAlgebra, Semester B

Unit 1: Integers; Exponents: Exponential Form

Unit 1: Integers; Exponents: Expanded Form

Unit 1: Integers; Exponents: Product Rule

Unit 1: Integers; Exponents: Power Rule

9.M.1.1.4 Identify exact and approximate roots without simplification.

Beginning Algebra

Sets and Numbers

Square Roots - Beginning Algebra

Roots and Radicals

Review: Sets and Numbers

Advanced Algebra

Numbers and Their Properties

Exponents and Radicals

Algebra 1, Part 2

Sets and Numbers (Alg 1.2)

Square Roots of Integers (Alg 1.2)

Review: Exponents and Radicals (Alg 1.2)

Algebra 2, Part 2

Numbers and their Properties (Alg 2.2)

Rules for Exponents and Radicals (Alg 2.2)

PLATO Course Algebra I, Semester A

Unit 1 - Rational Numbers, Exponents, and Square Roots

Square Roots of Perfect Squares (Alg 1.1)

Square Roots of Imperfect Squares (Alg 1.1)

PLATO Course Algebra I, Semester B

Unit 1 - Rational Numbers, Exponents, Radicals, and Sets

Square Roots of Integers (Alg 1.2)

Simplifying Square Roots Using Factors

Review: Exponents and Radicals (Alg 1.2)



PLATO Course Algebra 2, Semester B

Unit 1 - Rational Expressions, Factoring, Equations, Inequalities

Rules for Exponents and Radicals (Alg 2.2)

9.M.1.1.5 Solve problems using number theory concepts (factors, multiples, primes). (347.01.d)

Pre-Algebra

Basic Number Ideas - Pre-Algebra

Odd/Even/Prime/Composite Numbers

Algebra I, Part 1

Basic Number Ideas (Alg 1.1)

Prime and Composite Numbers (Alg 1.1)

Multiplying Common Fractions (Alg 1.1)

Adding and Subtracting Fractions (Alg 1.1)

Algebra I, Part 2

Sets and Numbers (Alg 1.2)

Review: Fractions and Sets (Alg 1.2)

PLATO Course Algebra I, Semester A

Unit 1: Rational Numbers, Exponents, and Square Roots; Prime and Composite Numbers

PLATO Course PreAlgebra, Semester A

Unit 2: Fractions; Finding Factors and Prime Factors

Unit 2: Fractions; Greatest Common Factors

Unit 2: Fractions; Finding Common Multiples and the Least Common Multiple

Unit 2: Fractions; Working with Common Denominators and the Least Common Denominator

9.M.1.1.6 Use appropriate vocabulary.

PLATO Modules use common, grade-level appropriate vocabulary in each activity and provide glossaries for additional assistance in defining unknown words.

Goal 1.2: Perform computations accurately.

9.M.1.2.1 Use the order of operations and perform operations with rational numbers. (347.02.a)

Algebra I, Part 1

Math Sentences (Alg 1.1)

Order of Operations (Alg 1.1)

Expressions in 2 or More Variables (Alg 1.1)



PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Order of Operations

Unit 4: Expressions, Equations, and Inequalities; Expressions in 2 or More Variables

Goal 1.3: Estimate and judge reasonableness of results.

9.M.1.3.1 Apply number sense to everyday situations and judge reasonableness of results. (347.03.a)

Foundational Math

Understanding Addition and Subtraction 2

Addition and Subtraction Fact Families

PLATO Course Geometry, Semester A

Unit 1- Geometry Basics, Points, Lines, Planes, and Angles: Problem Solving, Patterns, and Solutions

PLATO Course Pre-Algebra, Semester A

Unit 1: Whole Numbers; Estimation Basics (Pre-AlgA)

Unit 1: Whole Numbers; Special Divisibility Rules

9.M.1.3.2 Identify that error accumulates in a computation when there is rounding. (349.05.b)

Algebra I, Part I

Basic Number Ideas (Alg 1.1)

Mental Math with Whole Numbers and Decimals (Alg 1.1)

Special Topics (Alg 1.1)

Estimation Basics (Alg 1.1)

PLATO Course PreAlgebra, Semester A

Unit 1: Whole Numbers; Estimation Basics

Unit 3: Decimals; Mental Math with Whole Numbers and Decimals

Standard 2: Concepts and Principles of Measurement

Goal 2.1: Understand and use U.S. customary and metric measurements.

9.M.2.1.1 Given the formulas, find the circumference, perimeter, or area of triangles, circles, and quadrilaterals, and the volume and surface area of rectangular prisms and cylinders. (349.01.a)

Math Problem Solving

Geometry and Measurement

Math Problem Solving: Planning a Park

Math Problem Solving: Shelf Space

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Geometry and Measurement 1

Geometry

Circles/Arcs/Circumferences

Using Geometry

Measurement

Area, Part 1

Area, Part 2

Volume

Using Measurement

Geometry and Measurement 2

Transformations, Symmetry, and Area

Area of Right Triangles and Parallelograms

Area of Any Triangle

Area of Trapezoids and Rhombuses

Circles

Measuring Circumference

The Area of Circles

Solids and Coordinate Geometry

Area and Volume of Cylinders

PLATO Course Geometry, Semester A

Unit 3 - Polygons and Area: Calculating Perimeter of Geometric Figures

Unit 3 - Polygons and Area: Calculating the Area of Rectangles and Squares

Unit 3 - Polygons and Area: Area, Part 1

Unit 3 - Polygons and Area: Area of Right Triangles and Parallelograms

Unit 3 - Polygons and Area: Area of Any Triangle

Unit 3 - Polygons and Area: Area, Part 2

Unit 3 - Polygons and Area: Area of Trapezoids and Rhombuses

Unit 4 - Solid Figures and Volume: Calculating the Volume of a Rectangular Prism

Unit 4 - Solid Figures and Volume: Area and Volume of Cylinders

Unit 4 - Solid Figures and Volume: Using Measurement

PLATO Course Geometry, Semester B

Unit 3 - Circles: Introduction to Circles

Unit 3 - Circles: Circles, Arcs, and Circumferences

Unit 3 - Circles: Circumference, Arc, and Length

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Unit 3 - Circles: The Area of Circles

Unit 3 - Circles: Using Geometry

Geometry I

Geometry

Circles/Arcs/Circumferences

Using Geometry

Measurement

Area, Part 1

Area, Part 2

Volume

Using Measurement

Geometry 2

Transformations, Symmetry, and Area

Area of Trapezoids and Rhombuses

Circles

Measuring Circumference

The Area of Circles

Solids and Coordinate Geometry

Area and Volume of Cylinders

Transformations, Symmetry, and Area

Area of Right Triangles and Parallelograms

Area of Any Triangle

PLATO Course PreAlgebra, Semester B

Unit 2: Geometry; Finding the Perimeter of Polygons

Unit 2: Geometry; Radius, Diameter, Circumference, and Pi

Unit 2: Geometry; Calculating the Area of Rectangles and Squares

Unit 2: Geometry; Calculating the Area of Triangles

Unit 2: Geometry; Area, Part 1

Unit 2: Geometry; Area, Part 2

Unit 2: Geometry; Calculating the Volume of a Rectangular Prism

Unit 2: Geometry; Volume

Unit 2: Geometry; Surface Area of Prisms, Pyramids, and Cylinders

Unit 2: Geometry; Using Geometry

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9.M.2.1.2 Solve problems involving circumference, perimeter, or area of triangles, circles, and rectangles.

Math Problem Solving

Geometry and Measurement

Math Problem Solving: Planning a Park

Math Problem Solving: Shelf Space

Pre-Algebra

Basic Number Ideas - Pre-Algebra

Using Basic Number Ideas

Geometry and Measurement I

Geometry

Circles/Arcs/Circumferences

Using Geometry

Measurement

Area, Part 1

Area, Part 2

Using Measurement

Geometry and Measurement 2

Transformations, Symmetry, and Area

Area of Right Triangles and Parallelograms

Area of Any Triangle

Area of Trapezoids and Rhombuses

Circles

Measuring Circumference

The Area of Circles

Algebra I, Part I

Basic Number Ideas (Alg I.1)

Using Basic Number Ideas (Alg I.1)

Math Sentences (Alg I.1)

Using Linear Equations to Solve Problems (Alg I.1)

Using Quadratic Equations to Solve Problems (Alg I.1)

Graphing Basics (Alg I.1)

Solving Problems with Systems of Linear Equations (Alg I.1)

Equations and Formulas (Alg I.1)

Literal Equations (Alg I.1)

Special Topics (Alg I.1)

Solving Problems with Percents (Alg I.1)



Solving Problems with Mean, Median, and Mode (Alg I.1)

Solving Problems with Probability (Alg I.1)

PLATO Course Geometry, Semester A

Unit 3 - Polygons and Area: Calculating Perimeter of Geometric Figures

Unit 3 - Polygons and Area: Calculating the Area of Rectangles and Squares

Unit 3 - Polygons and Area: Area, Part 1

Unit 3 - Polygons and Area: Area of Right Triangles and Parallelograms

Unit 3 - Polygons and Area: Area of Any Triangle

Unit 3 - Polygons and Area: Area, Part 2

Unit 3 - Polygons and Area: Area of Trapezoids and Rhombuses

PLATO Course Geometry, Semester B

Unit 3 - Circles: Introduction to Circles

Unit 3 - Circles: Circles, Arcs, and Circumferences

Unit 3 - Circles: Circumference, Arc, and Length

Unit 3 - Circles: The Area of Circles

Unit 3 - Circles: Using Geometry

Geometry I

Geometry

Circles/Arcs/Circumferences

Using Geometry

Measurement

Area, Part 1

Area, Part 2

Using Measurement

Geometry 2

Transformations, Symmetry, and Area

Area of Trapezoids and Rhombuses

Circles

Measuring Circumference

The Area of Circles

Transformations, Symmetry, and Area

Area of Right Triangles and Parallelograms

Area of Any Triangle

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PLATO Course PreAlgebra, Semester A

Unit 4: Ratios and Proportions, Percents, and Measurement; Solving Problems with Percents

PLATO Course PreAlgebra, Semester B

Unit 2: Geometry; Finding the Perimeter of Polygons

Unit 2: Geometry; Radius, Diameter, Circumference, and Pi

Unit 2: Geometry; Calculating the Area of Rectangles and Squares

Unit 2: Geometry; Calculating the Area of Triangles

Unit 2: Geometry; Area, Part 1

Unit 2: Geometry; Area, Part 2

Unit 2: Geometry; Using Geometry

Unit 4: Expressions, Equations, and Inequalities; Literal Equations

Goal 2.2: Apply the concepts of rates, ratios, and proportions.

9.M.2.2.1 Use rates, ratios, proportions, and map scales in problem-solving situations. (349.03.a)

Math Problem Solving

Math Fundamentals

Math Problem Solving: Building a Highway

Math Problem Solving: Smart Shopping

Math Problem Solving: Car Costs

Math Problem Solving: Running a Business

Beginning Algebra

Math Problem Solving: Plan for Fishing Trip

Math Problem Solving: Tunnel through Bald Mountain

Math Problem Solving: Bean-Counting

Advanced Algebra

Math Problem Solving: Building Boats

Math Problem Solving: Saving the Birds

Geometry and Measurement

Math Problem Solving: Planning a Park

Math Problem Solving: Shelf Space

Probability and Statistics

Math Problem Solving: The Fund Raiser

Algebra I, Part I

Basic Number Ideas (Alg I.1)

Using Basic Number Ideas (Alg I.1)

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- Special Topics (Alg 1.1)
 - Scaling and Proportion, Part 1 (Alg 1.1)
 - Scaling and Proportion, Part 2 (Alg. 1.1)

- Algebra 1, Part 2
 - Equations and Inequalities (Alg 1.2)
 - Solving Problems with Linear Equations in 1 Variable (Alg 1.2)

- PLATO Course PreAlgebra, Semester A
 - Unit 4: Ratios and Proportions, Percents, and Measurement; Solving Proportions
 - Unit 4: Ratios and Proportions, Percents, and Measurement; Solving Ratio, Proportion, and Percent Story Problems
 - Unit 4: Ratios and Proportions, Percents, and Measurement; Scaling and Proportion, Part 1
 - Unit 4: Ratios and Proportions, Percents, and Measurement; Scaling and Proportion, Part 2

- PLATO Course PreAlgebra, Semester B
 - Unit 4: Expressions, Equations, and Inequalities; Solving Problems With Linear Equations in 1 Variable

9.M.2.2.2 Apply concepts of rates and direct and indirect measurements.

- Foundational Mathematics
 - Measurement
 - Solving Measurement Story Problems
- Math Problem Solving
 - Beginning Algebra
 - Math Problem Solving: Tunnel through Bald Mountain
 - Intermediate Algebra
 - Math Problem Solving: Running a Race
 - Geometry and Measurement
 - Math Problem Solving: Shelf Space
- PLATO Course Geometry, Semester B
 - Unit 4 - Geometry of the Coordinate Plane: Dimensional Analysis for Unit Conversion

9.M.2.2.3 Construct equivalent units, comparable units, and conversions. (349.02.a)

- Math Problem Solving
 - Beginning Algebra
 - Math Problem Solving: Tunnel through Bald Mountain



Geometry and Measurement I
Measurement
Metric Measurement

Geometry I
Measurement
Metric Measurement

PLATO Course PreAlgebra, Semester A

Unit 2: Fractions; Finding Equivalent Fractions

Unit 3: Decimals; Relating Decimals, Fractions, and Mixed Numbers

Unit 3: Decimals; Fractions and Repeating Decimals

Unit 4: Ratios and Proportions, Percents, and Measurement; Understanding Percent

Unit 4: Ratios and Proportions, Percents, and Measurement; Relating Fractions, Decimals, and Percents

Unit 4: Ratios and Proportions, Percents, and Measurement; Equivalent Ratios

Unit 4: Ratios and Proportions, Percents, and Measurement; Length

Unit 4: Ratios and Proportions, Percents, and Measurement; Capacity

Unit 4: Ratios and Proportions, Percents, and Measurement; Weight and Mass

Goal 2.3: Apply dimensional analysis.

9.M.2.3.1 Use customary and metric units and their relationship to one another and to real world applications involving length, area, capacity, weight, time, and temperature. (349.04.a)

Math Problem Solving
Geometry and Measurement
Math Problem Solving: Shelf Space

Geometry I
Measurement
Metric Measurement

Geometry and Measurement I
Measurement
Metric Measurement

PLATO Course Geometry, Semester A
Unit 4 - Solid Figures and Volume: Perimeter and Volume

PLATO Course PreAlgebra, Semester A
Unit 4: Ratios and Proportions, Percents, and Measurement; Length



Unit 4: Ratios and Proportions, Percents, and Measurement; Capacity

Unit 4: Ratios and Proportions, Percents, and Measurement; Weight and Mass

Goal 2.4: Apply appropriate techniques and tools to determine measurements.

9.M.2.4.1 Determine and use appropriate units. (349.01.a)

Math Problem Solving

Geometry and Measurement

Math Problem Solving: Planning a Park

Math Problem Solving: Shelf Space

PLATO Course PreAlgebra, Semester A

Unit 4: Ratios and Proportions, Percents, and Measurement; Length

9.M.2.4.2 Approximate error in measurement situations.

PLATO Modules are not available for this learning expectation.

Standard 3: Concepts and Language of Algebra and Functions

Goal 3.1: Use algebraic symbolism as a tool to represent mathematical relationships.

9.M.3.1.1 Represent mathematical relationships using variables, expressions, linear equations and inequalities. (350.01.a)

Math Problem Solving

Beginning Algebra

Math Problem Solving: Plan for Fishing Trip

Intermediate Algebra

Math Problem Solving: Video Rental

Math Problem Solving: Running a Race

Advanced Algebra

Math Problem Solving: Car Rental

Math Problem Solving: Building Boats

Math Problem Solving: Saving the Birds

Algebra I, Part I

Basic Number Ideas (Alg I.1)

Using Basic Number Ideas (Alg I.1)

Math Sentences (Alg I.1)

Expressions in 1 Variable (Alg I.1)

Expressions in 2 or More Variables (Alg I.1)

Using Linear Equations to Solve Problems (Alg I.1)



Equations and Formulas (Alg 1.1)

Literal Equations (Alg 1.1)

Algebra 1, Part 2

Equations and Inequalities (Alg 1.2)

Solving Problems with Linear Equations in 1 Variable (Alg 1.2)

PLATO Course Algebra 2, Semester B

Unit 1: Rational Expressions, Factoring, Equations, Inequalities; Graphing Linear Inequalities in 1 Variable

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Expressions in 1 Variable

Unit 4: Expressions, Equations, and Inequalities; Expressions in 2 or More Variables

Unit 4: Expressions, Equations, and Inequalities; Literal Equations

Unit 4: Expressions, Equations, and Inequalities; Using Linear Equations to Solve Problems

Unit 4: Expressions, Equations, and Inequalities; Solving Problems With Linear Equations in 1 Variable

Goal 3.2: Evaluate algebraic expressions.

9.M.3.2.1 Use appropriate procedures for manipulating and simplifying algebraic expressions involving variables, integers, and rational numbers. (350.02.a)

Pre-Algebra

Math Sentences, Part 1

Monomials

Binomials

Algebra 1, Part 1

Math Sentences (Alg 1.1)

Expressions in 1 Variable (Alg 1.1)

Adding Monomials (Alg 1.1)

Subtracting Monomials (Alg 1.1)

Adding Binomials and Monomials (Alg 1.1)

Subtracting Binomials and Monomials (Alg 1.1)

PLATO Course Algebra 2, Semester B

Unit 1: Rational Expressions, Factoring, Equations, Inequalities; Simplifying Algebraic Expressions

Unit 1: Rational Expressions, Factoring, Equations, Inequalities; Rational Expressions: Simplify



PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Expressions in 1 Variable

Unit 4: Expressions, Equations, and Inequalities; Adding Monomials

Unit 4: Expressions, Equations, and Inequalities; Subtracting Monomials

Unit 4: Expressions, Equations, and Inequalities; Subtracting Binomials and Monomials

Goal 3.3: Solve algebraic equations and inequalities.

9.M.3.3.1 Use appropriate procedures to solve multi-step, first-degree equations and inequalities; such as $3(2x - 5) = 5x + 7$ or $3(2x - 5) > 5x + 7$. (350.03.a)

Math Problem Solving

Intermediate Algebra

Math Problem Solving: Video Rental

Beginning Algebra

Math Sentences

Solving Equations

Inequalities I

Review: Math Sentences

Algebra I, Part 2

Equations and Inequalities (Alg I.2)

More Difficult Linear Equations in 1 Variable (Alg I.2)

Linear Inequalities in 1 Variable, Part 3 (Alg I.2)

Review: Equations and Inequalities (Alg I.2)

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Simple Equations in 1 Variable: Isolating the Variable

Unit 4: Expressions, Equations, and Inequalities; More Difficult Linear Equations in 1 Variable

Unit 4: Expressions, Equations, and Inequalities; More Difficult Linear Inequalities in 1 Variable

9.M.3.3.2 Differentiate between linear and non-linear equations and graphs.

Math Problem Solving

Advanced Algebra

Math Problem Solving: Building Boats



Algebra I, Part I

Introduction to Functions (Alg I.1)

Linear Patterns (Alg I.1)

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Linear Patterns

Unit 4: Expressions, Equations, and Inequalities; Interpreting Graphs to Solve Problems

Goal 3.4: Solve simple linear systems of equations.

9.M.3.4.1 Use appropriate procedures to solve linear systems of equations involving two variables; such as $x + y = 7$ and $2x + 3y = 21$. (350.04.a)

Math Problem Solving

Intermediate Algebra

Math Problem Solving: Video Rental

Math Problem Solving: Running a Race

Advanced Algebra

Math Problem Solving: Car Rental

Math Problem Solving: Building Boats

Pre-Algebra

Math Sentences, Part 2

Systems of Equations - Pre -Algebra

Algebra I, Part I

Graphing Basics (Alg I.1)

Solving and Graphing Systems of Equations (Alg I.1)

Solving Problems with Systems of Linear Equations (Alg I.1)

Goal 3.5: Understand the concept of functions.

9.M.3.5.1 Given graphs, charts, ordered pairs, mappings, or equations, determine whether a relation is a function.

Algebra I, Part I

Introduction to Functions (Alg I.1)

Functions (Alg I.1)

Describing Functions with Equations, Tables, and Graphs (Alg I.1)

9.M.3.5.2 Evaluate functions written in functional notation.

Math Problem Solving

Advanced Algebra

Math Problem Solving: Building Boats



9.M.3.5.3 Given a function, identify domain and range.

Algebra I, Part I

Introduction to Functions (Alg I.1)

Functions (Alg I.1)

PLATO Course Algebra I, Semester A

Unit 4 – Linear Relations, Systems, Functions, and Special Topics: Finding the Domain and Range of a Function

PLATO Course Algebra 2, Semester B

Unit 2 – Conic Sections, Functions, and Special Topics: Domain Values of Composite Functions

Goal 3.6: Apply functions to a variety of problems.

9.M.3.6.1 Model and solve real-world phenomena using multi-step, first degree, single variable equations and inequalities, linear equations, and two-variable linear systems of equations. (353.01.a)

Math Problem Solving

Beginning Algebra

Math Problem Solving: Plan for Fishing Trip

Intermediate Algebra

Math Problem Solving: Video Rental

Math Problem Solving: Running a Race

Advanced Algebra

Math Problem Solving: Car Rental

Math Problem Solving: Building Boats

Math Problem Solving: Saving the Birds

Pre-Algebra

Math Sentences, Part 1

Using Math Sentences, Part 1

Math Sentences, Part 2

Using Math Sentences, Part 2

Beginning Algebra

Math Sentences

Solving Equations

Word Problems I

Review: Math Sentences

Algebra I, Part I

Math Sentences (Alg I.1)

Using Linear Equations to Solve Problems (Alg I.1)



Graphing Basics (Alg I.1)
Solving Problems with Systems of Linear Equations (Alg I.1)

Equations and Formulas (Alg I.1)
Literal Equations (Alg I.1)

Introduction to Functions (Alg I.1)
Interpreting Graphs to Solve Problems (Alg I.1)

Algebra I, Part 2

Equations and Inequalities (Alg I.2)
More Difficult Linear Equations in 1 Variable (Alg I.2)
Solving Problems with Linear Equations in 1 Variable (Alg I.2)
Review: Equations and Inequalities (Alg I.2)

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; More Difficult Linear Equations in 1 Variable

Unit 4: Expressions, Equations, and Inequalities; Literal Equations

Unit 4: Expressions, Equations, and Inequalities; Using Linear Equations to Solve Problems

Unit 4: Expressions, Equations, and Inequalities; Solving Problems With Linear Equations in 1 Variable

9.M.3.6.2 Use graphs and sequences to represent and solve problems. (347.02.b)

Math Problem Solving

Intermediate Algebra
Math Problem Solving: Video Rental
Math Problem Solving: Running a Race

Advanced Algebra

Math Problem Solving: Car Rental
Math Problem Solving: Building Boats

Pre-Algebra

Math Sentences, Part 2
Systems of Equations - Pre -Algebra

Algebra I, Part I

Graphing Basics (Alg I.1)
Solving and Graphing Systems of Equations (Alg I.1)

Introduction to Functions (Alg I.1)
Patterns and Sequences (Alg I.1)



PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Patterns and Sequences

Standard 4: Concepts and Principles of Geometry

Goal 4.1: Apply concepts of size, shape, and spatial relationships.

9.M.4.1.1 Recognize congruency and similarity of two-dimensional figures. (351.01.a)

Geometry and Measurement 2

Introduction to Geometry

Congruent Angles

Triangles and Lines

Congruent Triangles, Part I

PLATO Course Geometry, Semester A

Unit 2 - Parallel and Perpendicular Lines and Triangles: Exploring Congruent Figures

PLATO Course Geometry, Semester B

Unit 2 - Similarity, Congruency, and Transformations: Exploring Similar Figures

Geometry 2

Introduction to Geometry

Congruent Angles

Triangles and Lines

Congruent Triangles, Part I

PLATO Course PreAlgebra, Semester B

Unit 2: Geometry; Changing Polygons and Circles

Unit 2: Geometry; Exploring Congruent Figures

Unit 2: Geometry; Exploring Similar Figures

9.M.4.1.2 Recognize similarity as it relates to size variations in two-dimensional objects. (351.01.b)

PLATO Course Geometry, Semester A

Unit 2 - Parallel and Perpendicular Lines and Triangles: Exploring Congruent Figures

PLATO Course Geometry, Semester B

Unit 2 - Similarity, Congruency, and Transformations: Exploring Similar Figures

PLATO Course PreAlgebra, Semester B

Unit 2: Geometry; Changing Polygons and Circles

Unit 2: Geometry; Exploring Similar Figures



Goal 4.2: Apply the geometry of right triangles.

9.M.4.2.1 Given the Pythagorean Theorem, calculate a missing side length of a right triangle where the legs and hypotenuse are natural numbers. (351.02.c)

Geometry and Measurement 1

Geometry

The Pythagorean Theorem 1

Using Geometry

Geometry and Measurement 2

Triangles and Lines

The Pythagorean Theorem 2

Solving Right Triangle Problems

Solid and Coordinate Geometry

The Distance Formula

PLATO Course Geometry, Semester B

Unit 1- Geometry of the Right Triangle and Right Triangle Trigonometry: The Pythagorean Theorem 1

Unit 1- Geometry of the Right Triangle and Right Triangle Trigonometry: The Pythagorean Theorem 2

Unit 1- Geometry of the Right Triangle and Right Triangle Trigonometry: Solving Right Triangle Problems

Unit 3 - Circles: Using Geometry

Geometry I

Geometry

The Pythagorean Theorem 1

Using Geometry

Geometry 2

Triangles and Lines

The Pythagorean Theorem 2

Solving Right Triangle Problems

Solid and Coordinate Geometry

The Distance Formula

PLATO Course PreAlgebra, Semester B

Unit 2: Geometry; The Pythagorean Theorem 1

Unit 2: Geometry; Using Geometry



Goal 4.3: Apply graphing in two dimensions.

9.M.4.3.1 Identify attributes of the Cartesian Coordinate System, such as quadrants, origin, and axes. (351.03.a)

Algebra 1, Part I

Graphing Basics (Alg 1.1)

Identifying Points on a Coordinate Plane (Alg 1.1)

Coordinate Plane (Alg 1.1)

Algebra 2, Part I

Graphs and Linear Equations (Alg 2.1)

The Coordinate Plane (Alg 1.1)

PLATO Course Geometry, Semester B

Unit 4 - Geometry of the Coordinate Plane: Coordinates in Three Dimensions

Unit 4 - Geometry of the Coordinate Plane: Cartesian Coordinates

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Coordinate Plane

9.M.4.3.2 Graph scatter plots and identify informal trend lines (e.g., eyeball fit lines).

Miscellaneous Math Resource

Charting and Graphing

Interpreting Scatter Diagrams

PLATO Course PreAlgebra, Semester B

Unit 3: Statistics and Graphs; Interpreting Bar, Line, and Circle Graphs and Scatter Plots

Unit 3: Statistics and Graphs; Creating Bar, Line, and Circle Graphs and Scatter Plots

9.M.4.3.3 Identify positive and negative correlations.

Miscellaneous Math Resource

Charting and Graphing

Interpreting Scatter Diagrams

PLATO Course PreAlgebra, Semester B

Unit 3: Statistics and Graphs; Interpreting Bar, Line, and Circle Graphs and Scatter Plots



Goal 4.4: Represent and graph linear relationships.

9.M.4.4.I Create graphs and equations for linear relationships.

Math Problem Solving

Beginning Algebra

Math Problem Solving: Tunnel through Bald Mountain

Intermediate Algebra

Math Problem Solving: Video Rental

Math Problem Solving: Running a Race

Advanced Algebra

Math Problem Solving: Car Rental

Math Problem Solving: Building Boats

Pre-Algebra

Math Sentences, Part 2

Linear Equations: 2 Variables

Systems of Equations - Pre -Algebra

Beginning Algebra

Math Sentences

Graphing

Review: Math Sentences

Algebra I, Part I

Graphing Basics (Alg I.1)

Graphing Linear Equations in 2 Variables (Alg I.1)

Solving and Graphing Systems of Equations (Alg I.1)

Introduction to Functions (Alg I.1)

Linear Patterns (Alg I.1)

Graphs, Slopes, and y-Intercepts (Alg I.1)

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Graphing Linear Equations in 2 Variables

Unit 4: Expressions, Equations, and Inequalities; Linear Patterns

Unit 4: Expressions, Equations, and Inequalities; Graphs, Slopes, and y-Intercepts

Unit 4: Expressions, Equations, and Inequalities; Interpreting Graphs to Solve Problems



9.M.4.4.2 Represent linear relationships using tables, graphs, and mathematical symbols.

Math Problem Solving

Beginning Algebra

Math Problem Solving: Tunnel through Bald Mountain

Intermediate Algebra

Math Problem Solving: Video Rental

Advanced Algebra

Math Problem Solving: Car Rental

Pre-Algebra

Math Sentences, Part 2

Linear Equations: 2 Variables

Beginning Algebra

Math Sentences

Graphing

Review: Math Sentences

Algebra I, Part I

Math Sentences (Alg I.1)

Determining the Truth Value of a Statement (Alg I.1)

Graphing Basics (Alg I.1)

Ordered Pairs as Solutions of Linear Equations (Alg I.1)

Graphing Linear Equations in 2 Variables (Alg I.1)

Introduction to Functions (Alg I.1)

Functions (Alg I.1)

Describing Functions with Equations, Tables, and Graphs (Alg I.1)

Linear Patterns (Alg I.1)

Graphs, Slopes, and y-Intercepts (Alg I.1)

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Determining the Truth Value of a Statement

Unit 4: Expressions, Equations, and Inequalities; Ordered Pairs as Solutions of Linear Equations

Unit 4: Expressions, Equations, and Inequalities; Graphing Linear Equations in 2 Variables

Unit 4: Expressions, Equations, and Inequalities; Linear Patterns

Unit 4: Expressions, Equations, and Inequalities; Graphs, Slopes, and y-Intercepts

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Unit 4: Expressions, Equations, and Inequalities; Interpreting Graphs to Solve Problems

9.M.4.4.3 Interpret attributes of linear relationships such as slope, rate of change, and intercepts.

Algebra I, Part I

Introduction to Functions (Alg I.1)

Linear Patterns (Alg I.1)

Graphs, Slopes, and y-Intercepts (Alg I.1)

Equations, Graphs, Slopes, and y-Intercepts (Alg I.1)

PLATO Course Geometry, Semester B

Unit 4 - Geometry of the Coordinate Plane: Slope

PLATO Course PreAlgebra, Semester B

Unit 4: Expressions, Equations, and Inequalities; Linear Patterns

Unit 4: Expressions, Equations, and Inequalities; Graphs, Slopes, and y-Intercepts

Unit 4: Expressions, Equations, and Inequalities; Equations, Graphs, Slopes, and y-Intercepts

Unit 4: Expressions, Equations, and Inequalities; Slope of a Line from 2 Points

Unit 4: Expressions, Equations, and Inequalities; Finding the Slope and y-Intercept from an Equation

Standard 5: Data Analysis, Probability, and Statistics

Goal 5.1: Represent data with a variety of formats.

9.M.5.1.1 Analyze and interpret tables, charts, and graphs, including scatter plots, broken line graphs, and box-and-whisker plots. (352.01.a)

Algebra I, Part I

Introduction to Functions (Alg I.1)

Interpreting Graphs to Solve Problems (Alg I.1)

Math Problem Solving

Data Skills

Math Problem Solving: Planning a Playground

Math Problem Solving: Growing Lilies

Probability and Statistics

Math Problem Solving: Making the Grade

Math Problem Solving: Statistics for Quality



Miscellaneous Math Resource
Charting and Graphing
Interpreting Scatter Diagrams

PLATO Course PreAlgebra, Semester B
Unit 3: Statistics and Graphs; Interpreting Bar, Line, and Circle Graphs and Scatter Plots

Unit 3: Statistics and Graphs; Box-and-Whisker Plots

Goal 5.2: Collect, organize, and display data.

9.M.5.2.1 Collect, organize, and display data in tables, charts, and graphs. (352.02.a)

Math Problem Solving
Data Skills
Math Problem Solving: Planning a Playground
Math Problem Solving: Growing Lilies
Beginning Algebra
Math Problem Solving: Tunnel through Bald Mountain

Advanced Algebra
Math Problem Solving: Saving the Birds

Probability and Statistics
Math Problem Solving: Making the Grade

PLATO Course PreAlgebra, Semester B
Unit 3: Statistics and Graphs; Creating Bar, Line, and Circle Graphs and Scatter Plots

Unit 3: Statistics and Graphs; Box-and-Whisker Plots

Goal 5.3: Apply simple statistical measurements.

9.M.5.3.1 Interpret and use basic statistical concepts, including mean, median, mode, range, and distribution of data, including outliers. (352.03.a)

Math Problem Solving
Data Skills
Math Problem Solving: Growing Lilies
Probability and Statistics
Math Problem Solving: Making the Grade
Math Problem Solving: Statistics for Quality

Pre-Algebra
Special Topics



Mean, Median, and Mode
Using Special Topics

Algebra I, Part I

Special Topics (Alg I.I)

Mean, Median, and Mode (Alg I.I)

Solving Problems with Mean, Median, and Mode (Alg I.I)

PLATO Course PreAlgebra, Semester B

Unit 3: Statistics and Graphs; Mean, Median, and Mode

Unit 3: Statistics and Graphs; More on Central Tendencies

Unit 3: Statistics and Graphs; Box-and-Whisker Plots

9.M.5.3.2 Make predictions and draw conclusions based on statistical measures. (352.05.a)

Math Problem Solving

Data Skills

Math Problem Solving: Planning a Playground

Math Problem Solving: Growing Lilies

Advanced Algebra

Math Problem Solving: Saving the Birds

Probability and Statistics

Math Problem Solving: Making the Grade

Math Problem Solving: Statistics for Quality

PLATO Course PreAlgebra, Semester B

Unit 3: Statistics and Graphs; More on Central Tendencies

Unit 3: Statistics and Graphs; Analyzing the Validity of Data

Goal 5.4: Understand basic concepts of probability.

9.M.5.4.1 Find probabilities based on dependent, independent, and compound events.

PLATO Course Algebra I, Semester A

Unit 4: Probability and Possible Outcomes; Solving Problems with Probability

PLATO Course Algebra 2, Semester A

Unit 3: Systems, Probability, and Vectors; Probabilities of Independent and Dependent Events

Unit 3: Systems, Probability, and Vectors; Multiplication Principle of Counting

PLATO Course PreAlgebra, Semester B

Unit 3: Statistics and Graphs; Multiplication Principle of Counting



9.M.5.4.2 Contrast experimental and theoretical probability. (352.04.a)

- Math Expeditions H
 - Probability/Stats H
 - Find probability and outcomes
- Math Expeditions I
 - Probability/Stats I
 - Find probability and outcomes

Goal 5.5: Make predictions or decisions based on data.

9.M.5.5.1 Make predictions based on randomness, chance, equally likely events, and probability. (352.04.c)

- Math Expeditions H
 - Probability/Stats H
 - Find probability and outcomes
- Math Expeditions I
 - Probability/Stats I
 - Find probability and outcomes

PLATO Course PreAlgebra, Semester B
Unit 3: Statistics and Graphs; Determining the Probability of an Event

9.M.5.5.2 Use appropriate tools/technology to conduct simulations and employ graphical models to make predictions or decisions based on data. (352.05.a)

- Math Problem Solving
 - Data Skills
 - Math Problem Solving: Planning a Playground
 - Math Problem Solving: Growing Lilies
- Advanced Algebra
 - Math Problem Solving: Saving the Birds
- Probability and Statistics
 - Math Problem Solving: Making the Grade
 - Math Problem Solving: Statistics for Quality

PLATO Course PreAlgebra, Semester B
Unit 3: Statistics and Graphs; Analyzing the Validity of Data

9.M.5.5.3 Design, conduct, and interpret results of statistical experiments. (352.05.b)

- Math Problem Solving
 - Data Skills



Math Problem Solving: Planning a Playground

Math Problem Solving: Growing Lilies

Beginning Algebra

Math Problem Solving: Tunnel through Bald Mountain

Advanced Algebra

Math Problem Solving: Saving the Birds

Probability and Statistics

Math Problem Solving: Making the Grade

Math Problem Solving: Statistics for Quality

PLATO Course PreAlgebra, Semester B

Unit 3: Statistics and Graphs; Conducting a Survey

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