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Student _____

Record Keeping: *Algebra 1*

	Date	Test Score	Proficiency
Pretest (Unit Test I)			

		LESSON PRACTICE		TEACH BACK	SYSTEMATIC REVIEW			H	Lesson Test	Test Date
		A	B		C	D	E			
1	Commutative and Associative Properties									
2	Order of Operations and Absolute Value									
3	Solve for Unknown with One Variable									
4	Distributive Property									
5	Number Lines and Cartesian Coordinates									
6	Graphing a Line									
7	Slope-Intercept Formula									
8	Graphing a Line from Slope-Intercept Formula									
9	Graphing Parallel Lines									
10	Graphing Perpendicular Lines									
11	Finding the Slope-Intercept Formula									

	Date	Test Score	Proficiency
Posttest (Unit Test I)			

LESSON OBJECTIVES

Lesson 1 Commutative and Associative Properties

- ☐ A1.1.a Identify the operations to which the Associative and Commutative Properties apply
- ☐ A1.1.b Rewrite addition or multiplication expressions using the Associative and/or Commutative Properties
- ☐ A1.1.c Rewrite subtraction expressions as addition before using Associative or Commutative Properties
- ☐ A1.1.d Use the Associative and Commutative Properties to solve equations
- ☐ A1.1.e Perform operations with integers

Lesson 2 Order of Operations and Absolute Value

- ☐ A1.2.a State the priority for multiple operations in the same equation or expression
- ☐ A1.2.b Simplify expressions using the order of operations

Lesson 3 Solve for Unknown with One Variable

- ☐ A1.3.a Define a variable
- ☐ A1.3.b Solve single-variable linear equations, applying the principles of additive and multiplicative inverses

Lesson 4 Distributive Property

- ☐ A1.4.a Use factoring and the Distributive Property of Multiplication over Addition to simplify expressions
- ☐ A1.4.b Simplify expressions to solve equations

Lesson 5 Number Lines and Cartesian Coordinates

- ☐ A1.5.a Plot numbers on a number line
- ☐ A1.5.b Plot single-variable inequalities on a number line
- ☐ A1.5.c Identify the coordinates of a given point on the Cartesian plane
- ☐ A1.5.d Identify in which quadrant of the Cartesian plane a point lies
- ☐ A1.5.e Plot a point on the Cartesian plane, given a pair of coordinates

Proficiency Guide: A (Advanced) 90–100% **P** (Proficient) 80–89% **NP** (Nearing Proficiency) 70–79% **BS** (Beginning Steps) Below 70%

	Lesson 6	**Graphing a Line**
☐	A1.6.a	Write a linear equation for a real-world scenario
☐	A1.6.b	Substitute for the variables in an equation to determine solutions
☐	A1.6.c	Create a table for a real-world scenario
☐	A1.6.d	Graph the data provided on a table in a coordinate grid
☐	A1.6.e	Determine whether a set of data demonstrates a linear relationship
	Lesson 7	**Slope-Intercept Formula**
☐	A1.7.a	Find the slope and *y*-intercept of a line graphed on the Cartesian plane
☐	A1.7.b	Find the slope and *y*-intercept of a line represented by a given equation
☐	A1.7.c	Give the equation of a line graphed on the Cartesian plane
☐	A1.7.d	Describe the equation of a line as a relationship between a dependent and an independent variable
	Lesson 8	**Graphing a Line from Slope-Intercept Formula**
☐	A1.8.a	Graph a linear equation
☐	A1.8.b	Give the equation for any horizontal or vertical line
☐	A1.8.c	Describe the visual difference between positive and negative slope
☐	A1.8.d	Explain that a numerically greater slope is steeper than a slope that is numerically less
	Lesson 9	**Graphing Parallel Lines**
☐	A1.9.a	Rewrite linear equations in standard form
☐	A1.9.b	Rewrite linear equations in slope-intercept form
☐	A1.9.c	Given a pair of equations, determine whether the lines they represent are parallel, without graphing
	Lesson 10	**Graphing Perpendicular Lines**
☐	A1.10.a	Determine whether a given equation represents a line perpendicular to a given line on a graph
☐	A1.10.b	Define perpendicular lines
☐	A1.10.c	Explain the relationship between the slopes of two perpendicular lines
☐	A1.10.d	Write the equation of a line perpendicular to a given line that runs through a specific point
	Lesson 11	**Finding the Slope-Intercept Formula**
☐	A1.11.a	Find the equation in slope-intercept form when given the slope and one point on a line
☐	A1.11.b	Find the slope when given two points on a line
☐	A1.11.c	Find the equation in slope-intercept form when given two points on a line

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Record Keeping: *Algebra 1*

	Date	Test Score	Proficiency
Pretest (Unit Test II)			

		LESSON PRACTICE		TEACH BACK	SYSTEMATIC REVIEW			H	Lesson Test	Test Date
		A	B		C	D	E			
12	Graphing Inequalities									
13	Solving Simultaneous Equations by Graphing									
14	Solving Simultaneous Equations by Substitution									
15	Solving Simultaneous Equations by Elimination									
16	Coin Problems									
17	Consecutive Integers									
18	Multiplication and Division with Exponents									
19	Exponents, Negative and Raising to a Power									
20	Addition and Multiplication of Polynomials									
21	Factor Polynomials									
22	Factoring Trinomials with Coefficients									
23	Factoring Trinomials with Negative Numbers									

	Date	Test Score	Proficiency
Posttest (Unit Test II)			

LESSON OBJECTIVES

Lesson 12 Graphing Inequalities

- ☐ A1.12.a Graph a linear inequality
- ☐ A1.12.b Name a pair of points which are on opposite sides of the boundary line of a linear inequality
- ☐ A1.12.c Determine whether a given point is a solution to a linear inequality

Lesson 13 Solving Simultaneous Equations by Graphing

- ☐ A1.13.a Explain that the graph of a line represents all the ordered pairs that make the line's equation true
- ☐ A1.13.b Explain that the intersection of two lines represents the one point that makes the equations of both lines true
- ☐ A1.13.c Explain that two parallel lines have no intersection and that their equations have no common solution

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Record Keeping: *Algebra 1*

Lesson 14 Solving Simultaneous Equations by Substitution

- ☐ A1.14.a Rewrite a given equation in a form that expresses one variable in terms of the other
- ☐ A1.14.b Replace a variable in one equation with an expression representing that variable in terms of the other variable
- ☐ A1.14.c Substitute the value of a known variable into a linear equation and solve for the unknown variable

Lesson 15 Solving Simultaneous Equations by Elimination

- ☐ A1.15.a Rewrite one equation from a system of equations to prepare for elimination of one variable by addition
- ☐ A1.15.b Eliminate one variable in a system of equations by adding two equations

Lesson 16 Coin Problems

- ☐ A1.16.a Solve a system of equations for coin problems

Lesson 17 Consecutive Integers

- ☐ A1.17.a Solve an equation or set of equations for consecutive integer problems

Lesson 18 Multiplication and Division with Exponents

- ☐ A1.18.a Use addition of exponents to multiply factors with the same base
- ☐ A1.18.b Use subtraction of exponents to divide factors with the same base

Lesson 19 Exponents, Negative and Raising to a Power

- ☐ A1.19.a Rewrite an expression with a negative exponent as the multiplicative inverse of the same expression with a positive exponent
- ☐ A1.19.b Rewrite negative exponents as fractions
- ☐ A1.19.c Rewrite fractions as expressions with negative exponents
- ☐ A1.19.d Identify numbers with an exponent of zero as being equal to one
- ☐ A1.19.e Raise an exponential expression to a power by multiplying exponents
- ☐ A1.19.f Rewrite rational expressions using negative exponents so that all the exponents are positive

Lesson 20 Addition and Multiplication of Polynomials

- ☐ A1.20.a Model second-order polynomials using manipulatives
- ☐ A1.20.b Model addition of second-order polynomials using manipulatives
- ☐ A1.20.c Add second-order polynomials
- ☐ A1.20.d Model multiplication of binomials using manipulatives
- ☐ A1.20.e Multiply binomials

Lesson 21 Factor Polynomials

- ☐ A1.21.a Model factorization of second-order polynomials using manipulatives
- ☐ A1.21.b Factor second-order polynomials into two binomial factors

Lesson 22 Factoring Trinomials with Coefficients

- ☐ A1.22.a Model factorization of second-order polynomials where the coefficient of the squared term is not one
- ☐ A1.22.b Use vertical multiplication to factor second-order polynomials where the coefficient of the squared term is not one
- ☐ A1.22.c Use FOIL to factor second-order polynomials where the coefficient of the squared term is not one

Lesson 23 Factoring Trinomials with Negative Numbers

- ☐ A1.23.a Model factorization of second-order polynomials, where some terms are negative
- ☐ A1.23.b Factor second-order polynomials using vertical multiplication, where some terms are negative
- ☐ A1.23.c Factor second-order polynomials using FOIL, where some terms are negative

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Record Keeping: *Algebra 1*

	Date	Test Score	Proficiency
Pretest (Unit Test III)			

		LESSON PRACTICE		TEACH BACK	SYSTEMATIC REVIEW			H	Lesson Test	Test Date
		A	B		C	D	E			
24	Square Roots and Dividing Polynomials									
25	Difference of Two Squares									
26	Repeated Factoring of Polynomials									
27	Solving Equations with Factoring									
28	Unit Multipliers									
29	Square Unit Multipliers									
30	Metric Conversions									
31	Fractional Exponents									
32	Significant Digits and Scientific Notation									
33	Bases Other Than Ten									
34	Graphing a Circle and an Ellipse									
35	Graphing a Parabola and a Hyperbola									

	Date	Test Score	Proficiency
Posttest (Unit Test III)			

LESSON OBJECTIVES

Lesson 24 Square Roots and Dividing Polynomials

- ☐ A1.24.a Find the square root of a perfect square trinomial using various strategies
- ☐ A1.24.b Model division of a trinomial by a binomial
- ☐ A1.24.c Perform long division of a trinomial by a binomial

Lesson 25 Difference of Two Squares

- ☐ A1.25.a Model the factorization of the difference of two squares
- ☐ A1.25.b Factor the difference of two squares

Lesson 26 Repeated Factoring of Polynomials

- ☐ A1.26.a Identify the appropriate strategies to use in factoring a polynomial
- ☐ A1.26.b Factor a polynomial completely

Lesson 27 Solving Equations with Factoring

- ☐ A1.27.a Factor to solve quadratic equations
- ☐ A1.27.b Check solutions to quadratic equations

Lesson 28 Unit Multipliers

- ☐ A1.28.a Create unit multipliers
- ☐ A1.28.b Identify the correct unit multiplier to use in a given problem
- ☐ A1.28.c Use a unit multiplier to convert from one unit to another

Lesson 29 Square Unit Multipliers

- ☐ A1.29.a Identify the number of times a unit multiplier needs to be used, based on whether a conversion is in one, two, or three dimensions
- ☐ A1.29.b Identify when different unit multipliers need to be used

Lesson 30 Metric Conversions

- ☐ A1.30.a Convert between metric and customary units of length, using unit multipliers
- ☐ A1.30.b Convert between metric and customary units of weight/mass, using unit multipliers
- ☐ A1.30.c Convert between metric and customary units of volume, using unit multipliers

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Lesson 31 Fractional Exponents

- ☐ A1.31.a Rewrite a radical expression as a base with a fractional exponent
- ☐ A1.31.b Rewrite a base with a fractional exponent as a radical expression

Lesson 32 Significant Digits and Scientific Notation

- ☐ A1.32.a Identify the number of significant digits in a given number
- ☐ A1.32.b Express answers to addition and multiplication problems using the correct number of significant digits
- ☐ A1.32.c Convert numbers to and from scientific notation
- ☐ A1.32.d Use scientific notation to multiply and divide both very large and very small numbers

Lesson 33 Bases Other Than Ten

- ☐ A1.33.a Convert numbers from base ten to other bases
- ☐ A1.33.b Convert numbers from other bases to base ten

Lesson 34 Graphing a Circle and an Ellipse

- ☐ A1.34.a State the center and radius of a circle, given its equation
- ☐ A1.34.b State the center and extremities of an ellipse based on its equation
- ☐ A1.34.d Graph a circle
- ☐ A1.34.e Graph an ellipse

Lesson 35 Graphing a Parabola and a Hyperbola

- ☐ A1.35.a Plot points and sketch a parabola, given its equation
- ☐ A1.35.b Plot points and sketch a hyperbola, given its equation