

**Performance Standards
Pre-Algebra
2004-2005**

Name _____

Standards					
13.0 Surface Areas and Volumes					
13.1 Conceptualize volume as a measure of <i>filling</i> an object.					
13.2 Conceptualize surface area as a measure of <i>wrapping</i> an object.					
13.3 Find volumes and surface areas for rectangular prisms.					
13.4 Find volumes and surface areas for cylinders.					
13.5 Reason about problems involving the surface areas and volumes of rectangular prisms, cylinders, cones, and spheres.					
14.0 Linear Relationships					
14.1 Represent the relationships among variables in a variety of ways.					
14.2 Determine an appropriate range of values for independent and dependent variables.					
14.3 Solve linear equations.					
14.4 Find the slope of a line from a graph, a table, or an equation.					
14.5 Find the y-intercept of a linear equation from its table, graph, or equation.					
14.6 Write a linear equation given the slope and y-intercept.					
14.7 Find a solution common to two linear equations by graphing or creating tables.					
15.0 Probability and Expected Values					
15.1 Review the understanding of experimental and theoretical probabilities.					
15.2 Make the distinction between single, specific outcomes and sets of outcomes that comprise an event.					
15.3 Analyze situations involving independent events.					
15.4 Analyze situations involving dependent events.					
15.5 Use probability and equivalent fractions to find expected values.					
15.6 Develop a variety of strategies for analyzing probabilities.					
15.7 Determine the expected value of a chance situation.					
16.0 Number Sense					
16.1 Read, write, and interpret the large numbers that occur in real-life measurements.					
16.2 Review the concepts of place value as it relates to reading, writing, and using large numbers.					
16.3 Review and extend the use of exponents.					
16.4 Choose sensible ways of comparing counts and					

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measurements.					
17.0 Relations					
17.1 Collect data and record in tables.					
17.2 Construct coordinate graphs to represent data.					
17.3 Make predictions from data tables or graphs.					
17.4 Use patterns in data to find equations that model relationships between variables.					
17.5 Distinguish between linear and nonlinear relationships.					
17.6 Identify inverse relationships and describe their characteristics.					
17.7 Use intuitive ideas about rates of change to sketch graphs or to create situations that fit given graphs.					
18.0 Real Numbers					
18.1 Extend understanding of number systems to include irrational numbers.					
18.2 Locate irrational numbers on the number line.					
18.3 Represent decimals as fractions and fractions as decimals.					
18.4 Use the Pythagorean Theorem to solve problems.					
18.5 Use slope to solve problems.					
19.0 Expressions and Equations					
19.1 Evaluate expressions by applying the rules of order of operations.					
19.2 Write symbolic sentences that communicate their reasoning.					
19.3 Develop methods for manipulating symbolic expressions.					
19.4 Make sense of symbolic expressions involving addition, subtraction, multiplication, division, and using exponents.					
19.5 Recognize applications of the commutative and distributive properties.					
19.6 Recognize and interpret equivalent expressions.					
19.7 Explain the reasoning underlying the solution of linear equations.					
19.8 Apply the properties for manipulating expressions to solve linear equations.					