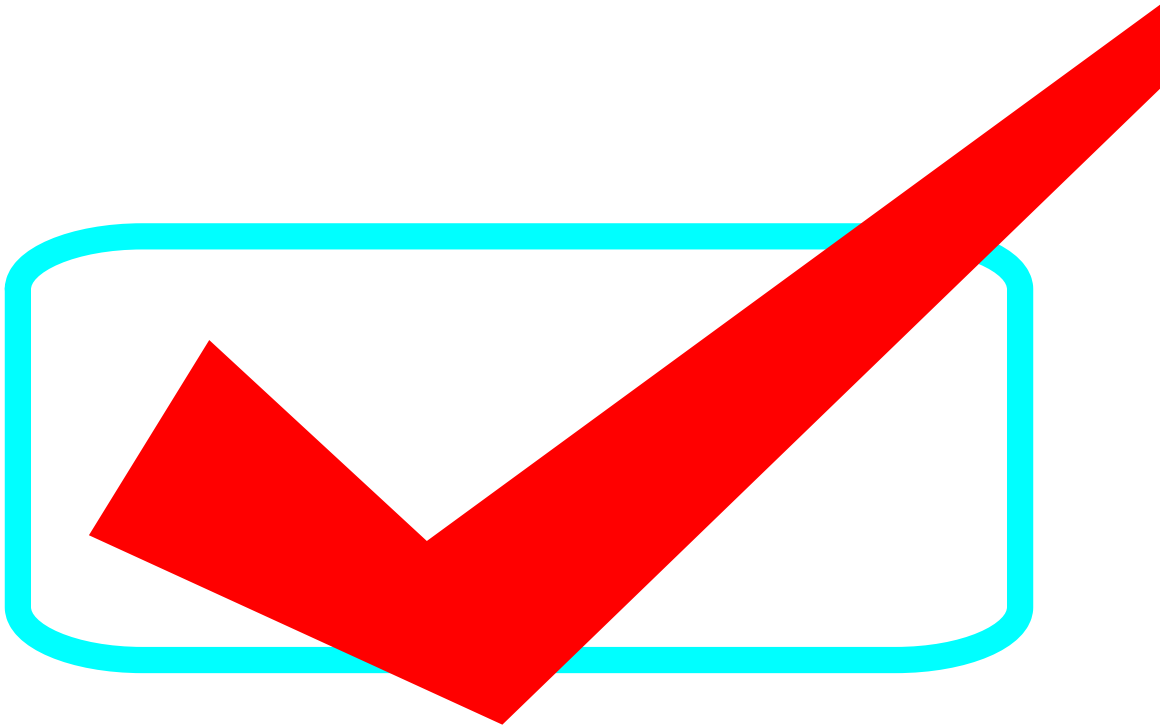


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# PERFORMANCE STANDARDS

2005-2006



Pre-Algebra

DUVAL COUNTY SCHOOLS  
JACKSONVILLE, FLORIDA

**Pre-Algebra  
Performance Standards  
2005-2006**

**14.0 Linear Relationships:**

The student will:

- 14.1 Represent the relationships among variables in a variety of ways, including the use of words, tables, graphs, and symbols.
- 14.2 Determine the 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.

**16.0 Number Sense**

The student will:

- 16.1 Read, write, and interpret the large numbers that occur in real-life measurements using standard, scientific, and calculator notation.
- 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 measurements, including using differences, rates, and ratios.

**17.0 Relations**

The student will:

- 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 for or to match graphs to given situations and to create situations that fit given graphs.

## **18.0 Real Numbers**

The student will:

- 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**

The student will:

- 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 in ways that are both connected to and independent from tabular, graphical, and contextualized reasoning.
- 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.

## **20.0 Transformations**

The student will:

- 20.1 Recognize and describe symmetries of figures.
- 20.2 Use technology to examine symmetries and transformations.
- 20.3 Create figures with specified symmetries.
- 20.4 Perform transformations of figures, including reflections, translations, and rotations.
- 20.5 Give precise directions in mathematics for performing reflections, rotations, and translations.
- 20.6 Write coordinate rules for specifying the image of a general point under particular transformations.

- 20.7 Find single transformations that will produce the same result as a combination of transformations.
- 20.8 Use transformations to describe motions, patterns, and designs in the real world.