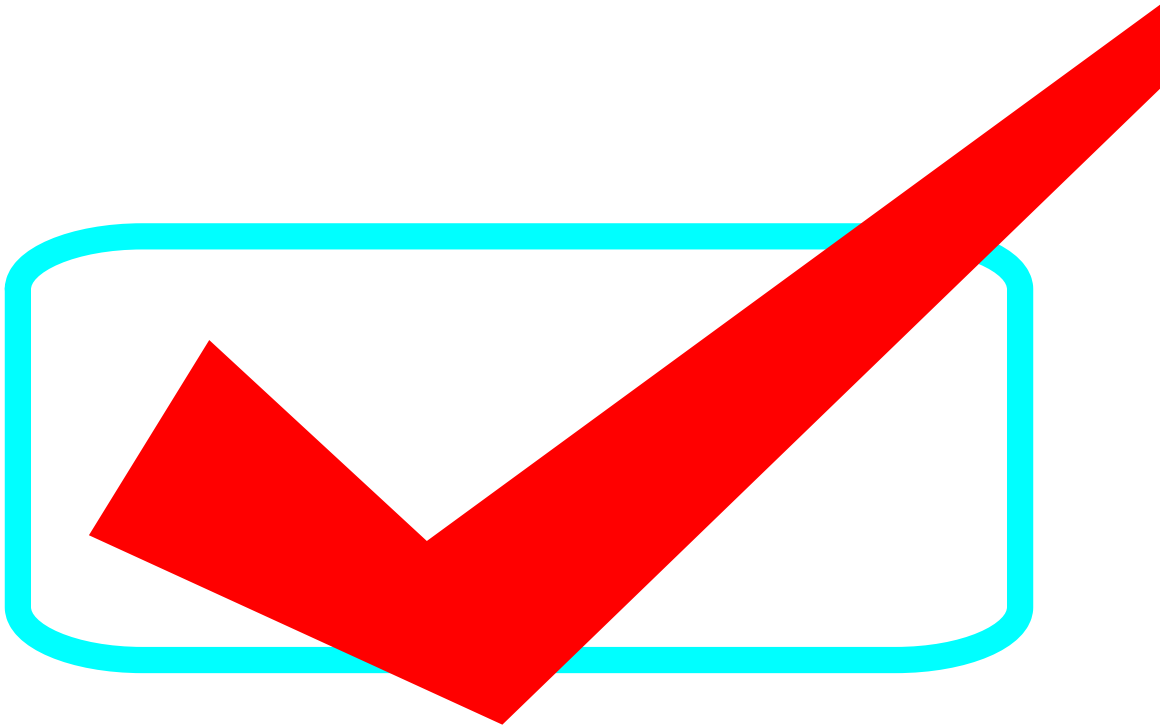


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# PERFORMANCE STANDARDS

2005-2006



M/J Mathematics 2  
DUVAL COUNTY SCHOOLS  
JACKSONVILLE, FLORIDA

**M/J Mathematics 2**  
**Performance Standards**  
**2005-2006**

**9.0 Patterns and Functions**

The student will:

- 9.1 Sketch coordinate graphs to show relationship between two variables.
- 9.2 Describe regular or predictable change in data from given patterns.
- 9.3 Select the appropriate range of values for given variables.
- 9.4 Create tables, graphs, and simple symbolic rules that describe the patterns of change.
- 9.5 Describe relationships among forms of data representation – words, tables, graphs, and symbolic rules.
- 9.6 Make decisions using tables, graphs, and rules.

**10.0 Similarity**

The student will:

- 10.1 Identify similar figures visually and by comparing sides and angles.
- 10.2 Recognize that lengths between similar figures change by a constant scale factor.
- 10.2 Build larger or smaller similar shapes from copies of a basic shape.
- 10.3 Divide a shape into smaller, similar shapes.
- 10.4 Describe the relationship between similarity and equivalent fractions.
- 10.5 Describe the effect of scale factor on length ratios and area ratios.
- 10.6 Determine and use scale factors to find unknown lengths.
- 10.7 Use the concept of similarity to solve real-world problems.
- 10.8 Use geometry software to explore similarity and transformations.
- 10.9 Make connections between algebra and geometry.

**11.0 Ratio, Proportion, and Percent**

The student will:

- 11.1 Demonstrate the use of the term ‘ratio’, ‘proportion’, and ‘percent’ to ask comparison questions.
- 11.2 Find equivalent ratios.
- 11.3 Represent data in tables and graphs.

- 11.4 Set up and solve proportions that arise in applications.
- 11.5 Look for patterns in tables that will allow predictions to be made beyond the tables.

## 12.0 Integers

The student will:

- 12.1 Represent integers on the number line.
- 12.2 Model situations with integers.
- 12.3 Compare integers using  $<$ ,  $=$ , and  $>$  symbols.
- 12.4 Develop strategies for adding, subtracting, multiplying, and dividing integers.
- 12.5 Use integers to solve problems.
- 12.6 Find inverses for given integers.
- 12.7 Sketch coordinate graphs in four quadrants.

## 13.0 Volume and Surface Area

The student will:

- 13.1 Conceptualize volume as a measure of *filling* an object.
- 13.2 Conceptualize surface area as a measure of *wrapping* an object.
- 13.3 Find volumes and surface areas for rectangular prisms.
- 13.4 Find volume and surface areas for cylinders.
- 13.5 Reason about problems involving the surface areas and volumes of rectangular prisms, cylinders, cones, and spheres.

## 15.0 Probability and Expected Values

The student will:

- 15.1 Review the understanding of experimental and theoretical probabilities and the relationships between them.
- 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, such as using lists, counting trees, and area models.
- 15.7 Determine the expected value of a chance situation.