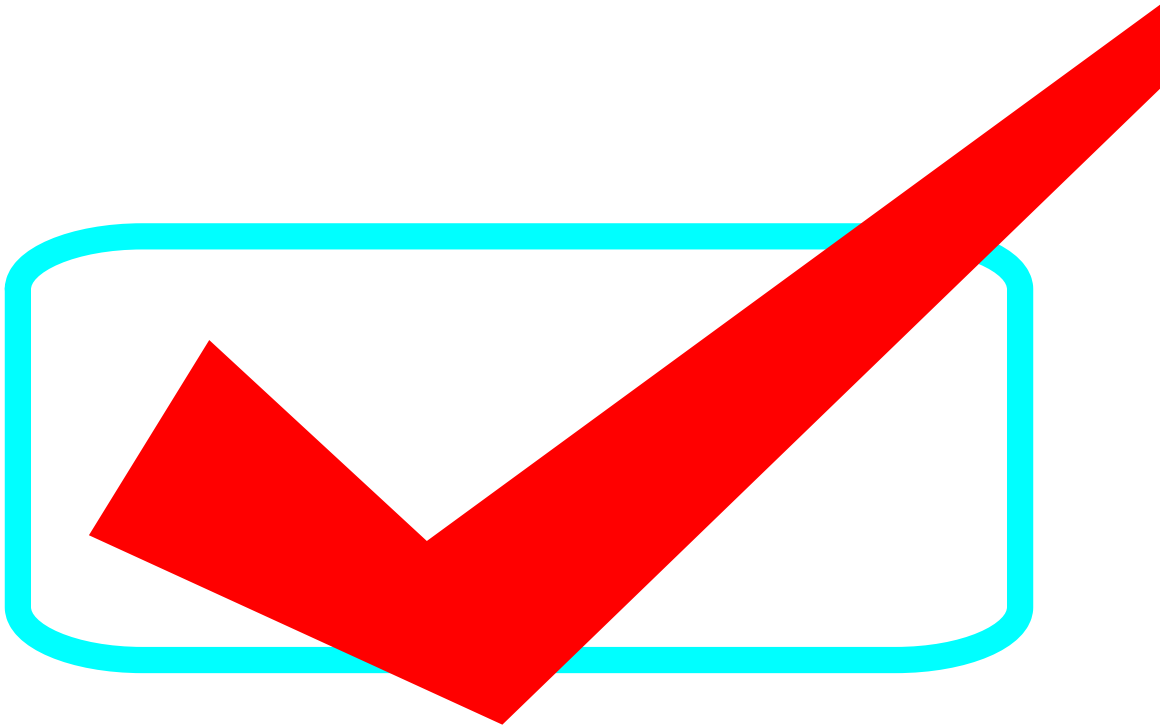


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# PERFORMANCE STANDARDS

2005-2006



M/J Mathematics 1  
DUVAL COUNTY SCHOOLS  
JACKSONVILLE, FLORIDA

**M/J Mathematics 1**  
**Performance Standards**  
**2005-2006**

**1.0 Number Theory**

The student will:

- 1.1 Understand the relationships among factors, multiples, divisors, and products.
- 1.2 Link area and dimensions of rectangles with products and factors.
- 1.3 Identify numbers as prime or composite and as odd or even based on their factors.
- 1.4 Develop strategies for finding factors and multiples of whole numbers.
- 1.5 Demonstrate the Fundamental Theorem of Arithmetic with specified whole numbers.
- 1.6 Develop strategies to solve problems involving factors and multiples.
- 1.7 Describe and continue given number patterns.

**2.0 Working With Data**

The student will:

- 2.1 Explore the process of data investigation, such as posing questions, collecting data, analyzing data, and making interpretations to answer questions.
- 2.2 Represent data using line graphs, bar graphs, stem-and-leaf plots, and coordinate graphs.
- 2.3 Explore ways of describing data such as measures of center (mode, median, mean) and range or variability in the data.
- 2.4 Develop strategies for comparing data sets.

**3.0 Geometry**

The student will:

- 3.1 Recognize, classify and analyze polygons.
- 3.2 Explore side-angle-shape connections of triangles, squares, rectangles, and parallelograms.
- 3.3 Estimate the size of angles using reference to a right angle and other benchmark angles.
- 3.4 Develop strategies for solving problems involving polygons and their properties.

## **4.0 Understanding Rational Numbers**

The student will:

- 4.1 Model situations involving fractions, decimals, and percents.
- 4.2 Develop an understanding of the relationships between fractions, decimals, and percents.
- 4.3 Compare and order fractions.
- 4.4 Use equivalent fractions to reason about situations.
- 4.5 Use benchmarks that relate different forms of representations for rational numbers (50% is the same as  $\frac{1}{2}$  and 0.5).
  
- 4.6 Move flexibly between fraction, decimal, and percent representations.

## **5.0 Measurement**

The student will:

- 5.1 Find areas and perimeters of rectangular shapes and non-rectangular shapes.
- 5.2 Develop procedures for finding areas and perimeters of rectangles.
- 5.3 Use area and perimeter to solve applied problems.
- 5.4 Find perimeters and areas of non-rectangular figures by ‘covering’ the figures with grids, tiles, or other objects and ‘surrounding’ the figure with string, straight-line segments, or other objects.
- 5.5 Reason about spatial relationships.
- 5.6 Use models and representations of models to solve problems.

## **6.0 Working with Rational Numbers**

The student will:

- 6.1 Estimate sums and differences of fractions and decimals.
- 6.2 Add and subtract fractions.
- 6.3 Use area to model multiplication of fractions.
- 6.4 Add, subtract, multiply, and divide with decimals.

## **7.0 Probability**

The student will:

- 7.1 Complete simple probability experiments.
- 7.2 Describe the relationship between experimental and theoretical probabilities.
- 7.3 Interpret statements of probability.
- 7.4 Develop strategies for finding experimental and theoretical probabilities.
- 7.5 Use data displayed in graphs and tallies to find experimental probabilities.
- 7.6 Organize data into lists or charts as a strategy for finding theoretical probabilities.