

# CONTENT ASSESSED ON THE FCAT NORM-REFERENCED TEST

## **MATHEMATICS PROBLEM SOLVING TEST AT GRADES 3-10**

- *Concepts of Whole Number Computation* – Demonstrate an understanding of the fundamental operations of arithmetic and their properties.
- *Number Sense and Numeration* – Demonstrate an understanding of the system of whole numbers and the basic principles of arithmetic.
- *Geometry and Spatial Sense* – Demonstrate an understanding of geometric principles.
- *Measurement* – Demonstrate an understanding of the principles of measurement.
- *Statistics and Probability* – Demonstrate an understanding of the relationships in data sets and the laws governing chance.
- *Fraction and Decimal Concepts* – Demonstrate an understanding of representations of rational numbers.
- *Patterns and Relationships* – Identify missing elements in numeric and geometric patterns.
- *Estimation* – Determine the reasonableness of results and apply estimation in problem solving.
- *Problem Solving Strategies* – Demonstrate an understanding of the process of solving conventional and non-routine problems.

### Grades 5 – 8 additional objectives

- *Number and Number Relationships* – Represent and use numbers in equivalent forms in real-world and mathematical problems and demonstrate number sense for whole numbers, fractions, decimals, and integers.
- *Number Systems and Number Theory* – Demonstrate an understanding of relationships among arithmetic operations and apply concepts of number theory such as primes, factors, and multiples in real-world and mathematical problems.
- *Algebra* – Demonstrate the ability to evaluate expressions and solve linear equations.

### Grades 9 – 10 additional objectives

- *Geometry from a Synthetic Perspective* – Identify and find properties of two- and three-dimensional objects and relationships between them.
- *Geometry from an Algebraic Perspective* – Make translations between algebraic and geometric representation of figures and use those translations to identify and find properties of the figures.
- *Trigonometry* – Apply trigonometric relationships to problems involving triangles.
- *Discrete Mathematics* – Solve problems involving recursive sequences, finite graphs, enumeration and algorithmic descriptions.
- *Conceptual Underpinning of Calculus* – Identify and solve problems involving the central ideas of calculus—limit, the area under a curve, and rate of change.

## **READING COMPREHENSION TEST AT GRADES 3-10**

- *Initial Understanding* – Demonstrate the ability to comprehend explicitly stated relationships in a variety of reading selections.
- *Interpretation* – Demonstrate the ability to form an interpretation of a variety of reading selections based on explicit and implicit information in the selections.
- *Critical Analysis* – Demonstrate the ability to synthesize and evaluate explicit and implicit information in a variety of reading selections.
- *Strategies* – Demonstrate the ability to recognize and apply text factors and reading strategies in a variety of reading selections.

### Objectives are measured within the following contexts

- *Recreational* – material typically read for enjoyment.
  - *Textual* – material typically found in grade-appropriate textbooks and other sources of information.
  - *Functional* – material typically encountered in everyday life situations.
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