

**Florida**  
**FCAT Standards**  
**Mathematics - Grade 8**  
**Correlations with Gourmet Curriculum Press, Inc.®**  
**1.800.900.2290**

<b>Benchmark Number</b>	<b>Benchmark • Instructional Target</b>	<b>Gourmet Resource</b>	<b>Taught</b>	<b>Tested</b>
<b>A: Number Sense, Concepts, and Operations</b>				
<b>1. The student understands the different ways numbers are represented and used in the real world.</b>				
<b>MA.A.1.3.1</b>	<ul style="list-style-type: none"> <li>• <i>associates verbal names, written word names, and standard numerals with integers, fractions, decimals; numbers expressed as percents; numbers with exponents; numbers in scientific notation; radicals, absolute value; and ratios.</i></li> </ul>	<b>Interspersed throughout Appetizers 1 A, B, &amp; C; 2 E; 1 (Number Concepts); 2 (Mathematical Relations)</b>		*
<b>MA.A.1.3.2</b>	<ul style="list-style-type: none"> <li>• <i>understands the relative size of integers, fractions, and decimals, numbers expressed as percents; numbers with exponents; numbers in scientific notation; radicals; absolute value; and ratios.</i></li> </ul>	<b>Appetizers 1 A, B, C, &amp; E; 2 A &amp; D; 1 (Number Concepts); 2 (Mathematical Relations)</b>		MC
<b>MA.A.1.3.3</b>	<ul style="list-style-type: none"> <li>• <i>understands concrete and symbolic representations of rational numbers and irrational numbers in real-world situations.</i></li> </ul>	<b>Appetizers 1 A, B, C, &amp; E; 2 A, D, &amp; E; 1 (Number Concepts); 2 (Mathematical Relations)</b>		*
<b>MA.A.1.3.4</b>	<ul style="list-style-type: none"> <li>• <i>understands that numbers can be represented in a variety of equivalent forms, including integers, fractions, decimals, percents, scientific notation, exponents, radicals, and absolute value (Also assesses A.1.3.1 and A.1.3.3)</i></li> </ul>	<b>Appetizers 1 B, C, D, &amp; E; 1 (Number Concepts)</b>		GR;MC
<b>2. The student understands number systems.</b>				
<b>MA.A.2.3.1</b>	<ul style="list-style-type: none"> <li>• <i>understands and uses exponential and scientific notation.</i></li> </ul>	<b>Appetizers 1 A &amp; B; 2 E; 1 (Number Concepts); 2 (Mathematical Relations)</b>		GR;MC
<b>MA.A.2.3.2</b>	<ul style="list-style-type: none"> <li>• <i>understands the structure of number systems other than the decimal number system.</i></li> </ul>			•

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	<b>3. The student understands the effects of operations on numbers and the relationships among these operations, selects appropriate operations, and computes for problem solving.</b>			
<b>MA.A.3.3.1</b>	<ul style="list-style-type: none"> <li>understands and explains the effects of addition, subtraction, multiplication, and division on whole numbers and fractions, including mixed numbers and decimals, including the inverse relationships of positive and negative numbers.</li> </ul>	Appetizers 2 A; 6 A; 7 A; 8 A; 9 A; 11 A; 13 B & C; 2 (Mathematical Relations); 6 (Addition); 7 (Subtraction); 8 (Multiplication); 9 (Division); 11 (Problem Solving); 13 (Reasonableness)		MC
<b>MA.A.3.3.2</b>	<ul style="list-style-type: none"> <li>selects the appropriate operation to solve problems involving addition, subtraction, multiplication, and division of rational numbers, ratios, proportions, and percents, including the appropriate application of the algebraic order of operations.</li> </ul>	Occurs throughout Appetizers 2 D & G; 6 A; 7 A; 8 A; 9 A; 11 A; 12 A; 2 (Mathematical Relations); 6 (Addition); 7 (Subtraction); 8 (Multiplication); 9 (Division); 11 (Problem Solving); 12 (Mathematical Representation)		GR; MC
<b>MA.A.3.3.3</b>	<ul style="list-style-type: none"> <li>adds, subtracts, multiplies, and divides whole numbers, decimals, and fractions, including mixed numbers, to solve real-world problems, using appropriate methods of computing, such as mental mathematics, paper and pencil, and calculator.</li> </ul>	Appetizers 6 A; 7 A; 8 A; 9 A; 11 A; 6 (Addition); 7 (Subtraction); 8 (Multiplication); 9 (Division); 11 (Problem Solving); 12 (Mathematical Representation)		GR; MC
	<b>4. The student uses estimation in problem solving and computation.</b>			
<b>MA.A.4.3.1</b>	<ul style="list-style-type: none"> <li>uses estimation strategies to predict results and to check the reasonableness of results. (Also assesses A.4.2.1, B.2.3.1, and B.3.3.1)</li> </ul>	Appetizers 10 A; 11 F; 12 C; 13 C; 10 (Estimation); 11 (Problem Solving); 12 (Mathematical Representation); 13 (Reasonableness)		SR
<b>MA.A.5.3.1</b>	<ul style="list-style-type: none"> <li>uses concepts about numbers, including primes, factors, and multiples, to build member sequences.</li> </ul>	Appetizers 1 E; 2 B; 1 (Number Concepts); 2 (Mathematical Relations)		*

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	<b>B: Measurement</b>			
	<b>1. The student measures quantities in the real world and uses the measures to solve problems.</b>			
<b>MA.B.1.3.1</b>	<ul style="list-style-type: none"> <li>uses concrete and graphic models to derive formulas for finding perimeter, area, surface area, circumference, and volume of two- and three-dimensional shapes, including rectangular solids and cylinders. (Also assesses B.1.2.2 and B.2.3.1)</li> </ul>	<b>Appetizers 4 D &amp; E; 11 C; 4 (Measurement); 11 (Problem Solving)</b>		<b>GR; SR</b>
<b>MA.B.1.3.2</b>	<ul style="list-style-type: none"> <li>uses concrete and graphic models to derive formulas for finding rates, distance, time, and angle measures. (Also assesses B.1.2.2 and B.2.3.1)</li> </ul>	<b>Appetizers 2 F; 3 C; 8 B; 11 C; 13 B; 2 (Mathematical Relations); 3 (Geometry); 8 (Multiplication); 11 (Problem Solving); 13 (Reasonableness)</b>		<b>GR; SR</b>
<b>MA.B.1.3.3</b>	<ul style="list-style-type: none"> <li>understands and describes how the change of a figure in such dimensions as length, width, height, or radius affects its other measurements such as perimeter, area, surface area, and volume. (Also assesses C.2.3.1)</li> </ul>	<b>Appetizers 2 D; 3 E &amp; I; 4 F &amp; H; 2 (Mathematical Relations); 3 (Geometry); 4 (Measurement)</b>		<b>GR; MC</b>
<b>MA.B.1.3.4</b>	<ul style="list-style-type: none"> <li>constructs, interprets, and uses scale drawings such as those based on number lines and maps to solve real-world problems. (Also assesses B.2.3.1)</li> </ul>	<b>Appetizers 4 G; 13 B; 4 (Measurement); 13 (Reasonableness)</b>		<b>GR; MC</b>
	<b>2. The student compares, contrasts, and converts within systems of measurement (both standard/nonstandard and metric/customary).</b>			
<b>MA.B.2.3.1</b>	<ul style="list-style-type: none"> <li>uses direct (measured) and indirect (not measured) measures to compare a given characteristic in either metric or customary units.</li> </ul>	<b>Appetizers 4 A, B, &amp; C; 11 C; 4 (Measurement); 11 (Problem Solving)</b>		*
<b>MA.B.2.3.2</b>	<ul style="list-style-type: none"> <li>solves problems involving units of measure and converts answers to a larger or smaller unit within either the metric or customary system.</li> </ul>	<b>Appetizers 4 B &amp; C; 11 C; 4 (Measurement); 11 (Problem Solving)</b>		<b>GR; MC</b>

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	<b>3. The student estimates measurements in real-world problem situations.</b>			
<b>MA.B.3.3.1</b>	<ul style="list-style-type: none"> <li><i>solves real-world and mathematical problems involving estimates of measurements including length, time, weight/mass, temperature, money, perimeter, area, and volume, in either customary or metric units.</i></li> </ul>	<b>Appetizers 4 A, B, C, D, E, F, &amp; H; 8 B; 11 C; 4 (Measurement); 8 (Multiplication); 11 (Problem Solving)</b>		*
	<b>4. The student selects and uses appropriate units and instruments for measurement to achieve the degree of precision and accuracy required in real-world situations.</b>			
<b>MA.B.4.3.1</b>	<ul style="list-style-type: none"> <li><i>selects appropriate units of measurement and determines and applies significant digits in a real-world context. (Significant digits should relate to both instrument precision and to the least precise unit of measurement.)</i></li> </ul>	<b>Appetizers 4 G; 4 (Measurement)</b>		•
<b>MA.B.4.3.2</b>	<ul style="list-style-type: none"> <li><i>selects and uses appropriate instruments, technology, and techniques to measure quantities in order to achieve specified degrees of accuracy in a problem situation.</i></li> </ul>	<b>Appetizers 3 C &amp; E; 4 G; 11 C; 3 (Geometry); 4 (Measurement); 11 (Problem Solving)</b>		•
<b>C: Geometry and Spatial Sense</b>				
	<b>1. The student describes, draws, identifies, and analyzes two- and three-dimensional shapes.</b>			
<b>MA.C.1.3.1</b>	<ul style="list-style-type: none"> <li><i>understands the basic properties of, and relationships pertaining to, regular and irregular geometric shapes in two and three dimensions. (Also assesses C.1.2.1)</i></li> </ul>	<b>Appetizers 3 A, B, &amp; G; 3 (Geometry)</b>		<b>GR; MC</b>
	<b>2. The student visualizes and illustrates ways in which shapes can be combined, subdivided, and changed.</b>			
<b>MA.C.2.3.1</b>	<ul style="list-style-type: none"> <li><i>understand the geometric concepts of symmetry, reflections, congruency, similarity, perpendicularity, parallelism, and transformations, including flips, slides, turns, and enlargements. (Also assesses B.1.3.3, C.1.2.1, C.1.3.1, and C.3.3.1)</i></li> </ul>	<b>Appetizers 3 F &amp; H; 11 D; 3 (Geometry); 11 (Problem Solving)</b>		<b>GR; MC; ER</b>

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MA.C.2.3.2	• <i>predicts and verifies patterns involving tessellations (a covering of a plane with congruent copies of the same patterns with no holes and no overlaps, like floor tiles).</i>	Appetizers 3 F; 3 (Geometry)		MC
	<b>3. The student uses coordinate geometry to locate objects in both two and three dimensions and to describe objects algebraically.</b>			
MA.C.3.3.1	• <i>represents and applies geometric properties and relationships to solve real-world and mathematical problems. (Also assesses C.2.3.1)</i>	Interspersed throughout Appetizers 3 A, B, C, D, E, F, G, H, & I; 11 D; 3 (Geometry); 11 (Problem Solving)		MC; SR
MA.C.3.3.2	• <i>identifies and plots ordered pairs in all four quadrants of a rectangular coordinate system (graph) and applies simple properties of lines.</i>	Appetizers 2 C; 2 (Mathematical Relations)		MC; SR
	<b>D: Algebraic Thinking</b>			
	<b>1. The student describes, analyzes, and generalizes a wide variety of patterns, relations, and functions.</b>			
MA.D.1.3.1	• <i>describes a wide variety of patterns, relationships, and functions through models, such as manipulatives, tables, graphs, expressions, equations, and inequalities. (Also assesses A.5.3.1)</i>	Appetizers 2 B & F; 5 D; 12 A & B; 2 (Mathematical Relations); 5 (Probability/Statistics); 12 (Mathematical Representation)		GR; MC
MA.D.1.3.2	• <i>creates and interprets tables, graphs, equations, and verbal descriptions to explain cause-and-effect relationships. (Also assesses A.5.3.1)</i>	Appetizers 2 C; 12 B; 2 (Mathematical Relations); 12 (Mathematical Representation)		GR; MC; ER
	<b>2. The student uses expressions, equations, inequalities, graphs, and formulas to represent and interpret situations.</b>			
MA.D.2.3.1	• <i>represents and solves real-world problems graphically, with algebraic expressions, equations, and inequalities. (Also assesses A.1.3.3)</i>	Appetizers 2 C; 12 B & C; 2 (Mathematical Relations); 12 (Mathematical Representation)		MC; SR
MA.D.2.3.2	• <i>uses algebraic problem-solving strategies to solve real-world problems involving linear equations and inequalities.</i>	Appetizers 2 F & G; 12 A; 2 (Mathematical Relations); 12 (Mathematical Representation)		GR; MC

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	<b>E: Data Analysis and Probability</b>			
	<b>1. The student understands and uses the tools of data analysis for managing information.</b>			
<b>MA.E.1.3.1</b>	<ul style="list-style-type: none"> <li>collects, organizes, and displays data in a variety of forms, including tables, line graphs, charts, and bar graphs, to determine how different ways of presenting data can lead to different interpretations. (Also assesses E.1.3.3)</li> </ul>	Appetizers 5 D; 11 E & F; 12 B; 5 (Probability/Statistics); 11 (Problem Solving); 12 (Mathematical Representation)		GR; MC; ER
<b>MA.E.1.3.2</b>	<ul style="list-style-type: none"> <li>understands and applies the concepts of range and central tendency (mean, median, and mode). (Also assesses E.1.3.3)</li> </ul>	Appetizers 5 C; 11 E; 5 (Probability/Statistics); 11 (Problem Solving)		GR; MC
<b>MA.E.1.3.3</b>	<ul style="list-style-type: none"> <li>analyzes real-world data by applying appropriate formulas for measures of central tendency and organizing data in a quality display, using appropriate technology, including calculators and computers.</li> </ul>	Appetizers 5 C; 11 E; 5 (Probability/Statistics); 11 (Problem Solving)		*
	<b>2. The student identifies patterns and makes predictions from an orderly display of data using concepts of probability and statistics.</b>			
<b>MA.E.2.3.1</b>	<ul style="list-style-type: none"> <li>compares experimental results with mathematical expectations of probabilities.</li> </ul>	Appetizers 5 A & B; 11 E; 5 (Probability/Statistics); 11 (Problem Solving)		SR
<b>MA.E.2.3.2</b>	<ul style="list-style-type: none"> <li>determines odds for and odds against a given situation. (Also assesses E.2.2.2)</li> </ul>	Appetizers 5 A & B; 11 E; 5 (Probability/Statistics); 11 (Problem Solving)		GR; MC

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	3. The student uses statistical methods to make inferences and valid arguments about real-world situations.			
MA.E.3.3.1	• <i>formulates hypotheses, designs experiments, collects and interprets data, and evaluates hypotheses by making inferences and drawing conclusions based on statistics (range, mean, median, and mode) and tables, graphs, and charts. (Also assesses E.3.3.2)</i>	Appetizers 5 C & D; 11 E & F; 12 B & C; 13 C; 5 (Probability/Statistics); 11 (Problem Solving); 12 (Mathematical Representation); 13 (Reasonableness)		MC; SR
MA.E.3.3.2	• <i>identifies the common uses and misuses of probability and statistical analysis in the everyday world.</i>	Appetizers 11 E & F; 13 C; 11 (Problem Solving); 13 (Reasonableness)		*

MC = Multiple Choice

GR = Gridded Response

SR = Short Response

ER = Extended Response

\* = Assessed with Another Benchmark

• = Not Assessed