

5th Grade Mathematics

2007 Next Generation Sunshine State Standards

Big Idea1: Develop an understanding of and fluency with division of whole numbers.

BENCHMARK CODE	BENCHMARK
MA.5.A.1.1	Describe the process of finding quotients involving multi-digit dividends using models, place value, properties and the relationship of division to multiplication. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.1.2	Estimate quotients or calculate them mentally depending on the context and numbers involved. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.1.3	Interpret solutions to division situations including those with remainders depending on the context of the problem. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>
MA.5.A.1.4	Divide multi-digit whole numbers fluently, including solving real-world problems, demonstrating understanding of the standard algorithm and checking the reasonableness of results. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>

Big Idea2: Develop an understanding of and fluency with addition and subtraction of fractions and decimals.

BENCHMARK CODE	BENCHMARK
MA.5.A.2.1	Represent addition and subtraction of decimals and fractions with like and unlike denominators using models, place value or properties. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.2.2	Add and subtract fractions and decimals fluently and verify the reasonableness of results, including in problem situations. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.2.3	Make reasonable estimates of fraction and decimal sums and differences, and use techniques for rounding. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.2.4	Determine the prime factorization of numbers. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>

Big Idea3: Describe three-dimensional shapes and analyze their properties, including volume and surface area.

BENCHMARK CODE	BENCHMARK
MA.5.G.3.1	Analyze and compare the properties of two-dimensional figures and three-dimensional solids (polyhedra), including the number of edges, faces, vertices, and types of faces. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>
MA.5.G.3.2	Describe, define and determine surface area and volume of prisms by using appropriate units and selecting strategies and tools. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>

Supporting Idea4: Algebra

BENCHMARK CODE	BENCHMARK
MA.5.A.4.1	Use the properties of equality to solve numerical and real world situations. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.4.2	Construct and describe a graph showing continuous data, such as a graph of a quantity that changes over time. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>

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Supporting Idea5: Geometry and Measurement

BENCHMARK CODE	BENCHMARK
MA.5.G.5.1	Identify and plot ordered pairs on the first quadrant of the coordinate plane. <i>Cognitive Complexity/Depth of Knowledge Rating: Low</i>
MA.5.G.5.2	Compare, contrast, and convert units of measure within the same dimension (length, mass, or time) to solve problems. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.G.5.3	Solve problems requiring attention to approximation, selection of appropriate measuring tools, and precision of measurement. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>
MA.5.G.5.4	Derive and apply formulas for areas of parallelograms, triangles, and trapezoids from the area of a rectangle. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>

Supporting Idea6: Number and Operations

BENCHMARK CODE	BENCHMARK
MA.5.A.6.1	Identify and relate prime and composite numbers, factors and multiples within the context of fractions. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.6.2	Use the order of operations to simplify expressions which include exponents and parentheses. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.6.3	Describe real-world situations using positive and negative numbers. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.6.4	Compare, order, and graph integers, including integers shown on a number line. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>
MA.5.A.6.5	Solve non-routine problems using various strategies including "solving a simpler problem" and "guess, check, and revise". <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>

Supporting Idea7: Data Analysis

BENCHMARK CODE	BENCHMARK
MA.5.S.7.1	Construct and analyze line graphs and double bar graphs. <i>Cognitive Complexity/Depth of Knowledge Rating: High</i>
MA.5.S.7.2	Differentiate between continuous and discrete data and determine ways to represent those using graphs and diagrams. <i>Cognitive Complexity/Depth of Knowledge Rating: Moderate</i>