



Grade 5 FCAT 2.0 Mathematics Achievement Level Descriptions

Grade 5 FCAT 2.0 Mathematics Reporting Category—Number: Base Ten and Fractions

Students performing at the mastery level of this reporting category will be able to divide multi-digit whole numbers, including solving real-world problems. Students will be able to add and subtract decimals, fractions, and mixed numbers. Students will also be able to compare and graph positive and negative integers.

Achievement Level	Achievement Level Descriptions
<p align="center">Level 5</p>	<p><u>Students will consistently be able to</u></p> <ul style="list-style-type: none"> • apply the distributive property to solve multi-digit division problems; • describe steps, including missing steps, of multi-digit division problems using the standard algorithm; • divide multi-digit whole numbers fluently using the standard algorithm; • solve real-world division problems, including estimating quotients according to context and checking for reasonableness of results; • identify models or representations of multi-digit division; • interpret solutions to division situations, including remainders; • make reasonable estimates of fraction and decimal sums and differences by applying appropriate strategies, and verify reasonableness of results in problem situations; • add and subtract fractions fluently with both like and unlike denominators and use models or properties in real-world situations; • add and subtract decimals fluently and use models, place value, or properties in real-world situations; • identify and use factors and multiples within the context of fractions; • factor composite numbers and express them as products of prime factors; • identify prime and composite numbers; • solve real world problems involving positive and negative numbers; • identify and graph integers on a number line; • compare and order integers; and • solve non-routine problems using various strategies.

Level 4	<p><u>Students will usually be able to</u></p> <ul style="list-style-type: none">• describe steps, including missing steps, of multi-digit division problems using the standard algorithm;• divide multi-digit whole numbers using the standard algorithm;• solve real-world division problems, including estimating quotients according to context, and checking for reasonableness of results;• identify models or representations of multi-digit division;• interpret solutions to division situations, including remainders;• make reasonable estimates of fraction and decimal sums and differences by applying appropriate strategies, and verify reasonableness of results in problem situations;• add and subtract fractions with both like and unlike denominators and use models or properties in real-world situations;• add and subtract decimals and use models, place value, or properties in real-world situations;• identify and use factors and multiples within the context of fractions;• factor composite numbers and express them as products of prime factors;• identify prime and composite numbers;• solve real world problems involving positive and negative numbers;• identify and graph integers on a number line;• compare and order integers; and• solve non-routine problems using various strategies.
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<p>Level 3</p>	<p><u>Students will generally be able to</u></p> <ul style="list-style-type: none"> • divide multi-digit whole numbers by a single-digit divisor using the standard algorithm; • solve real-world division problems, including estimating quotients according to context; • identify models or representations of multi-digit division; • factor composite numbers and express them as products of prime factors only; • solve real-world problems involving positive and negative numbers; • add and subtract fractions with both like and unlike denominators and use models or properties in real-world situations; • add and subtract decimals and use models, place value, or properties in real-world situations; • identify factors and multiples within the context of fractions; • identify and graph integers on a number line; and • solve non-routine problems by making tables or lists or by searching for a pattern.
<p>Level 2</p>	<p><u>Students may be able to demonstrate limited ability to</u></p> <ul style="list-style-type: none"> • identify models or representations of multi-digit division; • solve real-world division problems using basic number facts; • add and subtract fractions with like denominators, including using models in real-world situations; • add and subtract decimals, including using models and place value in real-world situations; • identify prime and composite numbers; and • identify and graph integers on a number line.
<p>Level 1</p>	<p>Performance at this level indicates an inadequate level of success with the challenging content of the <i>Next Generation Sunshine State Standards</i> for mathematics.</p>

Grade 5 FCAT 2.0 Mathematics Reporting Category—Geometry and Measurement

Students performing at the mastery level of this reporting category will be able to analyze shapes and solve problems related to area, surface area, and volume. Students will be able to convert and compare units of measure within the same system of measurement. Students will also be able to identify ordered pairs on a coordinate plane.

Achievement Level	Achievement Level Descriptions
Level 5	<p><u>Students will consistently be able to</u></p> <ul style="list-style-type: none">• identify and name a three-dimensional solid from a two-dimensional view or net;• construct a three-dimensional solid from a two-dimensional net;• analyze the relationship between three-dimensional solids and two-dimensional views or nets;• analyze and compare the properties of two-dimensional figures and three-dimensional solids;• identify the numbers of edges, faces, and vertices, and name the faces of three-dimensional solids;• use different strategies to solve problems involving the volume and surface area of prisms;• identify and plot ordered pairs in the first quadrant of a coordinate plane;• solve problems based on geometric properties of figures and horizontal and vertical movements of locations of ordered pairs in the first quadrant of a coordinate plane;• compare and contrast units of measure;• perform multi-step conversions to solve problems within the same measurement system, including determining elapsed time;• select appropriate tools and units used for measuring;• apply concepts of precision when solving measurement problems; and• derive and apply formulas for solving problems dealing with the area of parallelograms, triangles, and trapezoids.

<p>Level 4</p>	<p><u>Students will usually be able to</u></p> <ul style="list-style-type: none"> • identify and name a three-dimensional solid from a two-dimensional view or net; • construct a three-dimensional solid from a two-dimensional net; • identify the numbers of edges, faces, and vertices, and name the faces of three-dimensional solids; • determine the volume of prisms; • determine the surface area of prisms given a graphic or net; • identify and plot ordered pairs in the first quadrant of a coordinate plane; • solve problems based on geometric properties of figures or horizontal and vertical movements of locations of ordered pairs in the first quadrant of a coordinate plane; • perform a two-step unit conversion (linear, weight/mass, and time) within the same measurement system and determine elapsed time; • select appropriate tools and units used for measuring; • determine the degree of precision that is needed for measuring in a given situation; and • determine the area of parallelograms and triangles from the area of a rectangle.
<p>Level 3</p>	<p><u>Students will generally be able to</u></p> <ul style="list-style-type: none"> • identify and name a three-dimensional solid from a two-dimensional view or net; • identify the numbers of edges, faces, or vertices, and name the faces of three-dimensional solids; • determine the volume of prisms; • identify and plot ordered pairs in the first quadrant of a coordinate plane; • perform a single-unit conversion (linear, weight/mass, and time) within the same measurement system, including determining elapsed time to the nearest minute in problems involving a span of a few hours; • select appropriate tools and units used for measuring; and • determine the area of parallelograms and/or triangles from the area of a rectangle.

Level 2	<u>Students may be able to demonstrate limited ability to:</u> <ul style="list-style-type: none">• name a three-dimensional solid;• name the faces of three-dimensional solids;• identify or plot ordered pairs in the first quadrant of a coordinate plane;• perform a single-unit linear conversion within the customary system;• select appropriate tools and units used for measuring; and• determine the area of parallelograms and triangles by counting units on a grid.
Level 1	Performance at this level indicates an inadequate level of success with the challenging content of the <i>Next Generation Sunshine State Standards</i> for mathematics.

Grade 5 FCAT 2.0 Mathematics Reporting Category—Expressions, Equations, and Statistics

Students performing at the mastery level of this reporting category will be able to simplify expressions and use properties of equality to solve equations and real-world problems. Students will also be able to construct and analyze graphs appropriate to the context of the situation.

Achievement Level	Achievement Level Descriptions
Level 5	<p><u>Students will consistently be able to</u></p> <ul style="list-style-type: none">• translate a written description or graphic to an equation, which may include more than one variable;• solve real-world problems using properties of equality;• substitute a quantity of equal value for another quantity to solve an equation;• simplify expressions using order of operations, including exponents and parentheses;• identify, interpret, compare, and analyze line graphs or double bar graphs to represent a given set of data;• construct and identify an appropriate graph to represent a set of continuous or discrete data; and• differentiate between and explain why a set of data is discrete or continuous.
Level 4	<p><u>Students will usually be able to</u></p> <ul style="list-style-type: none">• translate a written description or graphic to an equation, which may include more than one variable;• solve real-world problems using properties of equality;• substitute a quantity of equal value for another quantity to solve an equation;• simplify expressions using order of operations, including exponents and/or parentheses;• identify, interpret, and compare line graphs or double bar graphs to represent a given set of data;• identify the appropriate graph to represent a set of continuous or discrete data; and• identify a set of discrete or continuous data.

<p>Level 3</p>	<p><u>Students will generally be able to</u></p> <ul style="list-style-type: none"> • translate a written description or graphic to an equation having one variable; • solve real-world problems using properties of equality and only one operation; • simplify expressions using order of operations, including exponents or parentheses; • identify or interpret line graphs or double bar graphs to represent a given set of data; and • identify the appropriate graph to represent a set of continuous or discrete data.
<p>Level 2</p>	<p><u>Students may be able to demonstrate limited ability to</u></p> <ul style="list-style-type: none"> • solve real-world problems using properties of equality and only one operation; • simplify expressions using order of operations, excluding exponents and parentheses; and • identify or interpret line graphs or double bar graphs to represent a given set of data.
<p>Level 1</p>	<p>Performance at this level indicates an inadequate level of success with the challenging content of the <i>Next Generation Sunshine State Standards</i> for mathematics.</p>