

Reporting Category Statements B.E.S.T. Standards: Mathematics

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Introduction

Students who participate in one or more of Florida's statewide, standardized assessments in grades 3–10 and/or end-of-course (EOC) assessments in Algebra 1, Geometry, Civic, U.S. History, and Biology 1 will receive a detailed score report that is unique to computer-adaptive assessments for each assessment. Each report will contain detailed information about the student's performance, narratives regarding strengths and weaknesses, and suggestions as to steps parents/guardians can take to help students progress in their learning. The information in each report is intended primarily for students and families and is not intended to replace classroom instruction.

The most detailed narrative is provided at the *reporting category* level. Reporting categories refer to major groupings of content and skills, such as Reading Informational Text or Reading Prose and Poetry in English Language Arts (ELA); Number Sense and Operations with Whole Numbers or Algebraic Reasoning in Mathematics; Nature of Science in Science; and Roles, Rights, and Responsibilities in Social Studies; among others. For each of the reporting categories, three tiers of text have been created based on state academic standards and informed by the Achievement Level Descriptors (ALDs) that were written by Florida educators. These tiers include *Below Expectations*, *At/Near Expectations* or *On Grade Level*, and *Above Expectations*. These reports classify student performance into one of the three tiers based on student responses to items that measure the benchmarks associated with that reporting category. Individual benchmark codes can be found in a report beneath the name of the correlated reporting category. Each student's report is tailored to provide specific information based on which of the three tiers that each reporting category score falls into. This document provides the complete set of narratives so that stakeholders can see expectation progressions within a reporting category and, if appropriate, across grades.

Each description included in these reports and the accompanying next steps were drafted by panels of Florida educators and reviewed by larger Florida educator committees facilitated by EdCount, LLC, and consisting of Florida educators, specialists from the Bureau of Standards and Instructional Support and other Florida Department of Education personnel.

It is important to keep in mind that a student's overall score provides the most valid and reliable evidence of what the student knows and can do with respect to the state academic standards. Due to the relatively small size of each reporting category, neither individual nor combined reporting category performance should be used to infer overall performance.

For more information on Florida's statewide, standardized assessments, please see the [Statewide Assessments Guide](#). Please direct questions and comments about these reports to Assessment@fldoe.org.

Additional Resources

The following resources are available to support understanding of the test design for Florida's statewide, standardized assessments and the skills outlined in the state academic standards.

[B.E.S.T. Standards Achievement Level Descriptions](#)

[Florida's B.E.S.T. Standards: Mathematics](#)

[FAST Mathematics and B.E.S.T. EOC Test Design Summary](#)

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Algebra 1 Reporting Category Statements

Expressions, Functions, and Data Analysis See Benchmarks for Excellent Student Thinking 912.NSO.1.1, 912.NSO.1.2, 912.NSO.1.4, 912.AR.1.1, 912.AR.1.2, 912.F.1.1, 912.F.1.2, 912.F.1.3, 912.F.1.6, 912.F.1.8 (including 912.FL.3.4), 912.F.2.1, 912.DP.1.2 (including 912.DP.1.1), 912.DP.1.4, 912.DP.3.1			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
What These Results Mean	For example, your learner may be able to: - Identify equivalent numerical or algebraic expressions involving rational exponents using a single Law of Exponents. - Add or subtract radicals with the same radicand. - Identify parts of an equation or expression in a mathematical context. - Identify and classify function types when given the graph of a function. - Calculate the average rate of change over a specified interval when given a table. - Complete two-way frequency tables. - Compare graphs of linear and nonlinear functions.	For example, your learner may be able to: - Apply one or more of the Laws of Exponents to evaluate numerical expressions, as well as generate equivalent numerical and algebraic expressions involving rational exponents. - Perform one or more of the following operations with radicals: add, subtract, or multiply. - Rearrange formulas that require two steps to form a new formula. - Identify the graph of a function after a transformation. - Evaluate a function when given specific input/output values in a mathematical context. - Calculate the average rate of change over a specified interval from the function when represented graphically or in an input/output table. - Find joint and marginal frequencies from a two-way frequency table. - Identify and classify function types when given the equation of a function. - Compare equations of linear and nonlinear functions.	For example, your learner may be able to: - Apply more than one of the Laws of Exponents to evaluate numerical expressions and generate equivalent numerical expressions involving rational exponents. - Add, subtract, multiply, and divide numerical radicals. - Identify the function type and compare key features of linear and nonlinear functions when represented in multiple forms. - Interpret why a function type corresponds to its real-world context, as well as describe the effect of transformations on a function. - Evaluate and interpret the output of a function in the context of a real-world situation. - Calculate and interpret the average rate of change in a real-world situation. - Understand that a function growing exponentially will exceed the growth of a function that grows linearly or quadratically. - Select an appropriate method to represent a given data set, whether it is univariate or bivariate.

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Expressions, Functions, and Data Analysis See Benchmarks for Excellent Student Thinking 912.NSO.1.1, 912.NSO.1.2, 912.NSO.1.4, 912.AR.1.1, 912.AR.1.2, 912.F.1.1, 912.F.1.2, 912.F.1.3, 912.F.1.6, 912.F.1.8 (including 912.FL.3.4), 912.F.2.1, 912.DP.1.2 (including 912.DP.1.1), 912.DP.1.4, 912.DP.3.1			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
Next Steps	For example, have your learner: - Practice using the Laws of Exponents to generate equivalent expressions. - Identify and classify function types when given an equation or an input/output table. Evaluate functions for a given input value. - Identify and interpret factors, terms, constants, coefficients, and variables in real-world problems. - Explore problems involving joint and marginal frequencies from a two-way frequency table.	For example, have your learner: - Generate fluency using multiple Laws of Exponents and operations with radicals. - Rearrange formulas that involve multiple steps to create a new formula. - Identify and classify function types represented in multiple forms (graphs, equations, tables, and written descriptions). Interpret the output of a function in a real-world context. - Calculate the average rate of change in a real-world context. - Write explanations and justifications when solving problems involving topics such as transformations on a graph; relationships between linear, quadratic, and exponential functions; or data analysis.	For example, have your learner: - Analyze errors in worked examples and make appropriate corrections. - Compare key features of functions represented in multiple forms (graphs, equations, tables, and written descriptions). Interpret key features in a real-world context. - Compare and interpret factors, terms, constants, coefficients, and variables in equivalent expressions and equations in a real-world context. - Use linear and exponential functions to analyze real-world financial situations such as loans, savings accounts, and investments.

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Linear Relationships See Benchmarks for Excellent Student Thinking 912.AR.2.1, 912.AR.2.2, 912.AR.2.3, 912.AR.2.4, 912.AR.2.5, 912.AR.2.6, 912.AR.2.7, 912.AR.2.8, 912.AR.9.1, 912.AR.9.4, 912.AR.9.6, 912.F.1.5, 912.DP.2.4, 912.DP.2.6 (including 912.DP.1.3)			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
What These Results Mean	For example, your learner may be able to: - Solve one-variable multistep linear equations represented in a real-world context and one-variable multi-step linear inequalities represented in a mathematical context. - Identify the solutions and graphs of mathematical problems that are modeled with linear functions. - Identify from a graph or a set of equations when two lines are parallel or perpendicular. - Compare key features between two graphed linear functions. - Identify the graph that represents the solution set of a two-variable inequality or a system of two-variable inequalities. - Solve systems of two-variable equations when given in a mathematical context.	For example, your learner may be able to: - Identify and solve one variable, multi-step linear equations in a real-world context. - Write and solve one variable, multistep linear inequalities and represent their solutions on a number line. - Write a linear, two-variable equation in a mathematical context when given a graph, a written description, or a table of values. - Identify the graph of a linear function and key features such as domain and range when given an equation in slope-intercept or point-slope form. - Write equations of lines parallel and perpendicular to a given line through a given point when represented on a graph. - Compare key features of linear functions when represented graphically or algebraically. - Write, graph, and identify the solution set to a two-variable linear inequality. - Identify and solve systems of two-variable equations and inequalities when given in a mathematical or real-world context.	For example, your learner may be able to: - Write, solve, and interpret solutions of linear equations, linear inequalities, systems of linear equations, and systems of linear inequalities. - Analyze and correct errors in linear equations and inequalities. - Analyze solutions as viable or not viable in systems of equations and inequalities. - Fit a linear function to data and use it to solve real-world problems and make predictions in terms of the context of the data.
Next Steps	For example, have your learner: Write and solve one-variable multi-step linear equations and inequalities from real-world contexts.	For example, have your learner: Extend knowledge of linear relationships to problems represented in real-world contexts.	For example, have your learner: Analyze errors in worked examples and make appropriate corrections.

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Linear Relationships See Benchmarks for Excellent Student Thinking 912.AR.2.1, 912.AR.2.2, 912.AR.2.3, 912.AR.2.4, 912.AR.2.5, 912.AR.2.6, 912.AR.2.7, 912.AR.2.8, 912.AR.9.1, 912.AR.9.4, 912.AR.9.6, 912.F.1.5, 912.DP.2.4, 912.DP.2.6 (including 912.DP.1.3)			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
	- Write and graph a linear two-variable equation to represent relationships between quantities. - Write and solve systems of two-variable equations and inequalities.	- Interpret solutions and/or constraints to write linear relationships. - Analyze data with linear associations.	- Explore graphs of systems of nonlinear equations and make comparisons to systems of linear equations. - Use learned knowledge and apply it to situations in other fields (arts, science, technology, etc.).

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Nonlinear Relationships See Benchmarks for Excellent Student Thinking 912.AR.1.3, 912.AR.1.4, 912.AR.1.7, 912.AR.3.1, 912.AR.3.4, 912.AR.3.5, 912.AR.3.6, 912.AR.3.7, 912.AR.3.8, 912.AR.4.1, 912.AR.4.3, 912.AR.5.3, 912.AR.5.4, 912.AR.5.6, 912.FL.3.2			
Indicator	Below Expectations	At/Near Expectations	Above Expectations
What These Results Mean	For example, your learner may be able to: • Relate a quadratic function in vertex form to its graph or table and identify the intercepts, domain, range, and vertex. • Identify the solution(s) of a quadratic equation from its graph. • Identify the domain and range of an exponential function given a graph and classify the function as growth or decay. • Add and subtract binomial expressions with integer coefficients. • Factor a common monomial from a polynomial. • Solve simple quadratic equations.	For example, your learner may be able to: • Add, subtract, and multiply expressions with integer coefficients. • Divide a binomial by a monomial. • Factor expressions as a product of linear binomial relationships. • Solve and graph quadratic equations. • Identify a quadratic function when given intercepts of the function. • Determine the domain, range, y-intercept, constant rate of change, and interval behavior given the graph of an exponential, quadratic, or absolute-value equation.	For example, your learner may be able to: • Add, subtract, and multiply expressions with rational coefficients. • Divide a polynomial by a monomial. • Factor any polynomial. • Solve and write quadratic functions when given key features within mathematical and real-world contexts. • Graph quadratic, exponential, and absolute value functions when given a table, equation, or written description.
Next Steps	For example, have your learner: • Multiply and factor binomial and trinomial expressions. • Divide polynomials by monomials. • Solve quadratic equations by factoring. • Write nonlinear functions from given key features or criteria. • Determine key features of exponential, quadratic, and absolute value functions.	For example, have your learner: • Perform operations with polynomial expressions with rational coefficients. • Factor any polynomial. • Write and solve quadratic and absolute-value equations using multiple strategies.	For example, have your learner: • Analyze errors in worked examples and make appropriate corrections. • Compare the merits of two investments involving simple and compound interest.

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