



Algebra 1 End-of-Course Assessment Achievement Level Descriptions

Algebra 1 EOC Assessment Reporting Category—Functions, Linear Equations, and Inequalities	
<p>Students performing at the mastery level of this reporting category will be able to solve real-world problems involving relations and functions. In addition, students will be able to interpret and analyze graphs, tables, sets of ordered pairs, and equations of relations, as well as determine the appropriate domain and range. Students will be able to use function notation and link equations to functions. Students will be able to solve literal equations and symbolically represent, solve, graph, and interpret linear equations, inequalities, and systems of linear equations.</p>	
Achievement Level	Achievement Level Descriptions
Level 5	<p>Students will consistently be able to</p> <ul style="list-style-type: none"> • solve real-world problems involving relations and functions; • interpret and analyze graphs, tables, sets of ordered pairs, and equations of relations; • determine the domain and range of a relation; • use function notation; • link equations to functions; • symbolically represent, solve, graph, interpret, analyze, and apply concepts of linear equations; • solve literal equations; • symbolically represent, solve, graph, interpret, analyze, and apply concepts of simple and compound linear inequalities; and • symbolically represent, solve, graph, interpret, analyze, and apply concepts of systems of linear equations in two variables.

<p>Level 4</p>	<p><u>Students will usually be able to</u></p> <ul style="list-style-type: none"> • solve real-world problems involving relations and functions; • interpret and analyze graphs, tables, sets of ordered pairs, and equations of relations; • determine the domain and range of a relation; • use function notation; • link equations to functions; • symbolically represent, solve, graph, interpret, and analyze linear equations; • solve literal equations; • symbolically represent, solve, graph, interpret, and analyze simple and compound linear inequalities; and • symbolically represent, solve, graph, interpret, and analyze systems of linear equations in two variables.
<p>Level 3</p>	<p><u>Students will generally be able to</u></p> <ul style="list-style-type: none"> • solve real-world problems involving relations and functions; • interpret graphs, tables, sets of ordered pairs, and equations of relations; • determine the domain and range of a relation; • use function notation; • link equations to functions; • symbolically represent, solve, graph, and interpret linear equations; • solve literal equations; • symbolically represent, solve, graph, and interpret simple linear inequalities; and • solve, graph, and interpret systems of linear equations in two variables.

<p>Level 2</p>	<p><u>Students may be able to demonstrate limited ability to</u></p> <ul style="list-style-type: none"> • solve problems involving relations or functions; • interpret graphs, tables, or sets of ordered pairs of relations; • determine the domain and range of a simple relation; • solve or graph linear equations; • solve simple literal equations; • solve or graph simple linear inequalities; and • solve or graph a system of linear equations in two variables.
<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>

Algebra 1 EOC Assessment Reporting Category—Rationals, Radicals, Quadratics, and Discrete Mathematics	
<p>Students performing at the mastery level of this reporting category will be able to simplify rational and radical expressions. In addition, students will be able to add, subtract, multiply, and divide radical expressions and simplify results. Students will be able to solve algebraic proportions. Students will be able to interpret the graph of a quadratic function and solve quadratic equations over the set of real numbers. Students will be able to perform set operations including union and intersection, complement, and cross product. Students will be able to interpret Venn diagrams.</p>	
Achievement Level	Achievement Level Descriptions
Level 5	<p><u>Students will consistently be able to</u></p> <ul style="list-style-type: none"> • solve algebraic proportions in real-world and mathematical contexts; • simplify radical expressions; • add, subtract, multiply, and divide radical expressions and simplify the results; • identify the graph of a quadratic function given its equation in real-world and mathematical contexts; • solve quadratic equations over the set of real numbers; • solve real-world problems using quadratic equations; • perform set operations, such as union and intersection, complement, and cross product; and • use Venn diagrams to explore and make arguments about relationships among sets.

<p>Level 4</p>	<p><u>Students will usually be able to</u></p> <ul style="list-style-type: none"> • solve algebraic proportions in real-world and mathematical contexts; • simplify radical expressions; • add, subtract, multiply, and/or divide radical expressions and simplify the results; • identify the graph of a quadratic function given its equation in real-world and mathematical contexts; • solve quadratic equations over the set of real numbers; • solve real-world problems using quadratic equations; • perform set operations, such as union and intersection, complement, and cross product; and • use Venn diagrams to explore and make arguments about relationships among sets.
<p>Level 3</p>	<p><u>Students will generally be able to</u></p> <ul style="list-style-type: none"> • solve algebraic proportions in real-world or mathematical contexts; • simplify radical expressions; • add, subtract, multiply, and/or divide radical expressions and simplify the results; • identify the graph of a simple quadratic function given its equation in real-world or mathematical contexts; • solve simple quadratic equations with rational solutions; • perform set operations, such as union and intersection, complement, and cross product; and • use Venn diagrams to explore relationships and patterns between sets.

<p>Level 2</p>	<p><u>Students may be able to demonstrate limited ability to</u></p> <ul style="list-style-type: none"> • solve algebraic proportions in mathematical contexts; • simplify radical expressions; • identify the graph of a simple quadratic function given its equation in a mathematical context; • solve simple quadratic equations with rational solutions in mathematical contexts; • perform set operations, such as union or intersection, complement, or cross product; and • use Venn diagrams to explore relationships or patterns between sets.
<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>

Algebra 1 EOC Assessment Reporting Category—Polynomials	
Students performing at the mastery level of this reporting category will be able to apply the laws of exponents to simplify monomial expressions with integral exponents. Students will be able to simplify (add, subtract, and multiply) polynomials. In addition, students will be able to divide polynomials by monomials. Students will be able to factor polynomial expressions, including greatest common factor, difference of two squares, and trinomials.	
Achievement Level	Achievement Level Descriptions
Level 5	<p><u>Students will consistently be able to</u></p> <ul style="list-style-type: none"> • apply the laws of exponents to simplify monomial expressions with integral exponents; • simplify polynomial expressions using addition, subtraction, and multiplication in mathematical and real-world contexts; • completely factor polynomial expressions; • use factoring methods to simplify rational expressions; and • divide polynomials by monomials.

<p>Level 4</p>	<p><u>Students will usually be able to</u></p> <ul style="list-style-type: none"> • apply the laws of exponents to simplify monomial expressions with integral exponents; • simplify polynomial expressions using addition, subtraction, and multiplication in mathematical and real-world contexts; • completely factor polynomial expressions; • use factoring methods to simplify rational expressions; and • divide polynomials by monomials.
<p>Level 3</p>	<p><u>Students will generally be able to</u></p> <ul style="list-style-type: none"> • apply the laws of exponents to simplify monomial expressions with positive integral exponents; • simplify polynomial expressions using addition, subtraction, and multiplication in mathematical contexts; • completely factor polynomial expressions when only one factoring method is required; and • divide polynomials by monomials.

<p>Level 2</p>	<p><u>Students may be able to demonstrate limited ability to</u></p> <ul style="list-style-type: none"> • apply the laws of exponents to simplify monomial expressions with positive integral exponents; • simplify polynomial expressions using addition, subtraction, or multiplication in mathematical contexts; • completely factor polynomial expressions when only one factoring method is required; and • divide polynomials by monomials when the quotient has no remainder.
<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>