

CP Algebra 1

Reporting Standards

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| CP-ALG1-9.1 | Solve equations and inequalities through the process of algebraic reasoning |
| CP-ALG1-9.2 | Represent, interpret and evaluate functions |
| CP-ALG1-9.3 | Write and graph linear functions |
| CP-ALG1-9.4 | Solve systems of linear equations in two variables using graphing, substitution and elimination |
| CP-ALG1-9.5 | Apply the properties of rational and irrational numbers |
| CP-ALG1-9.6 | Identify, classify and combine polynomials |
| CP-ALG1-9.7 | Factor and expand polynomials |

Learning Targets

| CP-ALG1-9.1: Solve equations and inequalities using algebraic reasoning. | | | | |
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| | Limited | Developing | Proficient | Exemplary |
| CP-ALG1-9.1.1 | I can simplify an expression using the distributive property and combine like terms. | I can solve equations and identify whether an equation has one solution, no solutions or infinitely many solutions. | I can create an equation to model a problem and solve for the variable. | I can create multi-step equations that yield a specific solution. |
| CP-ALG1-9.1.2 | I can identify the inequality symbols and graph a given solution on a number line. | I can solve a two-step inequality and graph it on a number line. | I can solve a multi-step inequality with one variable and graph the solution on a number line. | I can solve a compound inequality, graph the solution on a number line and represent it in interval notation. |
| CP-ALG1-9.2: Represent, interpret and evaluate functions. | | | | |
| | Limited | Developing | Proficient | Exemplary |
| CP-ALG1-9.2.1 | I can recall specific vocabulary such as: function, function notation, relation, domain and range. | I can distinguish between a relation and function. | I can identify a function and represent it as a table, graph, mapping diagram and in function notation. | I can create a function to model a real-world situation and describe the domain of the function. |
| CP-ALG1-9.2.2 | I can identify a function and I understand the difference between domain and range values. | I can evaluate a function for a given domain value when given a graph of the function. | I can evaluate functions for given domain values and perform operations with the function. | I can rewrite two functions as a composite function. |

| CP-ALG1-9.3: Write and graph linear functions | | | | |
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| | Limited | Developing | Proficient | Exemplary |
| CP-ALG1-9.3.1 | I can write a linear function in slope intercept form when given the formula and the slope and y-intercept. | I can write a linear function in slope intercept form given a graph or the slope and one point on the line. | I can write a linear function in slope intercept form given the equation in standard form or two points on the line. | I can write a linear function in standard form, slope-intercept and point-slope form. |
| CP-ALG1-9.3.2 | I can identify the slope and y-intercept of a linear function when given a graph. | I can graph a linear function in slope-intercept form. | I can graph a linear function and identify the slope and intercepts. | I can graph linear functions that model real-world situations and use the line of best fit to predict output values. |
| CP-ALG1-9.3.3 | I know the definition of parallel and perpendicular. | I can identify parallel and perpendicular lines given the slopes of the lines. | I can write and graph parallel and perpendicular lines on a coordinate plane. | I can create parallel and perpendicular lines given a specific solution set. |

| CP-ALG1-9.4: Solve systems of linear equations in two variables using graphing, substitution and elimination. | | | | |
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| | Limited | Developing | Proficient | Exemplary |
| CP-ALG1-9.4.1 | I can identify the solution of a system of linear equations when given a graphic representation of the problem. | I can solve a system of linear equations using two of the three methods. | I can solve a system of linear equations by graphing, substitution and elimination. | I can write and solve (algebraically) systems of linear equations to model real-world applications. |

| CP-ALG1-9.5: Apply properties of rational and irrational numbers. | | | | |
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| | Limited | Developing | Proficient | Exemplary |
| CP-ALG1-9.5.1 | I can identify a radical expression and recall vocabulary related to the concept. | I can simplify a perfect square or perfect cube. | I can simplify and combine radicals to create equivalent expressions, including rationalizing the denominator. | I can perform operations on radicals that include variables. |

| CP-ALG1-9.6: Identify, classify and combine polynomials. | | | | |
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| | Limited | Developing | Proficient | Exemplary |
| CP-ALG1-9.6.1 | I can identify a polynomial and recognize some basic terminology. | I can identify polynomials and classify a polynomial when given the degree and number of terms. | I can arrange a polynomial into standard form and classify it by degree and number of terms. | I can create a model of a polynomial using algebraic manipulatives. |
| CP-ALG1-9.6.2 | I can identify "like terms" in polynomials. | I can identify "like terms" in polynomials | I can simplify polynomials using | I can apply my knowledge of |

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| | | given multiple variables and degrees. | addition, subtraction and multiplication. | polynomial operations to geometric applications. |
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CP-ALG1-9.7: Factor and expand polynomials.

| | Limited | Developing | Proficient | Exemplary |
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| CP-ALG1-9.7.1 | I can identify common terms and shared factors. | I can expand and factor a polynomial by the greatest common factor. | I can factor polynomials using a difference of squares, basic trinomials, and grouping. | I can factor a trinomial with a leading coefficient greater than one. |