

Mathematics
Algebra 1: CP
Unit 3: Solving Linear Functions

Essential Understandings	Solving linear functions is one of the major skills necessary to be successful in Algebra 1.
Essential Questions	- What is a solution of an equation? - How do you solve algebraic equations? - How do you solve and use formulas? - How do you use ratios and rates to solve real life problems? - How do you solve percentage problems?
Essential Knowledge	- Solutions of equations are what make equations true. - Ratios can be written in different ways. - Ratios and rates can be used to solve real life problems. - The definition of percentage is parts per hundred.
Vocabulary	<u>Terms:</u> - equation, linear equations, formulas, ratios, rates, percent, percent equations.
Essential Skills	- Identify solutions off equations. - Solve algebraic equations. - Solve and use formulas. - Use ratios and rates to solve real life problems. - Solve percentage problems.
Related Maine Learning Results	<u>Mathematics</u> D. Algebra Equations and Inequalities D2.Students solve families of equations and inequalities. - Solve systems of linear equations and inequalities in two unknowns and interpret their graphs. - Solve quadratic equations graphically, by factoring in cases where factoring is efficient, and by applying the quadratic formula. - Solve simple rational equations. - Solve absolute value equations and inequalities and interpret the results. - Apply the understanding that the solution(s) to equations of the form $f(x) = g(x)$ are x-value(s) of the point(s) of intersection of the graphs of $f(x)$ and $g(x)$ and common outputs in table of values. - Explain why the coordinates of the point of intersection of the lines represented by a system of equations is its solution and apply this understanding to solving problems. D3.Students understand and apply ideas of logarithms. - Use and interpret logarithmic scales. - Solve equations in the form of $x + b^y$ using the equivalent form $y = \log_b x$.

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Sample Lessons And Activities	▪ Students will orally respond to questions. ▪ Students will utilize worksheets and in their notes to demonstrate individual understanding of the concepts.
Sample Classroom Assessment Methods	▪ Evaluate homework ▪ Quizzes ▪ Chapter test
Sample Resources	▪ <u>Publications:</u> ○ <u>Algebra 1</u> – McDougall Littell