

Mathematics
Topics in Algebra and Geometry
Unit 3: Solving Linear Functions

Essential Understandings	<ul style="list-style-type: none"> ▪ Solving linear functions is one of the major skills necessary to be successful in Algebra 1.
Essential Questions	<ul style="list-style-type: none"> ▪ What is a solution off 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	<ul style="list-style-type: none"> ▪ An equation has a solution. ▪ A ratio is a comparison of two numbers. ▪ Percentage means part of 100. ▪ Percentage problems can be solved using a proportion.
Vocabulary	<ul style="list-style-type: none"> ▪ <u>Terms:</u> <ul style="list-style-type: none"> ○ equation, linear equations, formulas, ratios, rates, percent, percent equations
Essential Skills	<ul style="list-style-type: none"> ▪ Identify solutions of equations. ▪ Solve algebraic equations. ▪ Solve and use formulas. ▪ Use ratios and rates to solve real life problems. ▪ Solve percentage problems.
Related Maine Learning Results	<p><u>Mathematics</u> D. Algebra Symbols and Expressions D1.Students understand and use polynomials and expressions with rational exponents.</p> <ol style="list-style-type: none"> a. Simplify expressions including those with rational numbers. b. Add, subtract, and multiply polynomials. c. Factor the common term out of polynomial expressions. d. Divide polynomials by $(ax+b)$.
Sample Lessons And Activities	<ul style="list-style-type: none"> ▪ Students will work in pairs on worksheets that require ratios and proportions to solve word problems.
Sample Classroom Assessment Methods	<ul style="list-style-type: none"> ▪ Students will present their solutions to check for understanding and accuracy.
Sample Resources	<ul style="list-style-type: none"> ▪ <u>Publications:</u> <ul style="list-style-type: none"> ○ <u>Algebra 1 Textbook</u> (McDougall Littell)