

Standards

This unit was developed to meet the following standards.

California Academic Content Standards for Mathematics, Grades 9–12

- Students simplify expressions before solving linear equations and inequalities in one variable [*Algebra 1, 4.0*]
- Students solve multi-step problems involving linear equations and inequalities in one variable [*Algebra 1, 5.0*]
- Students graph linear equations and linear inequalities [*Algebra 1, 6.0*]
- Students solve a system of linear equations or linear inequalities algebraically and interpret the answer graphically [*Algebra 1, 9.0*]
- Students understand the concepts of a relation and a function [*Algebra 1, 16.0*]
- Students solve systems of linear equations and inequalities (in two or three variables) by substitution, with graphs, or with matrices [*Algebra 2, 2.0*]

CTE AME Industry Sector Foundation Standards

4.0 Technology

Students know how to use contemporary and emerging technological resources in diverse and changing personal, community, and workplace environments:

- 4.2 Understand the use of technological resources to gain access to, manipulate, and produce information, products, and services.
- 4.7 Understand how technology can reinforce, enhance, or alter products and performances.

11.0 Demonstration and Application

Students demonstrate and apply the concepts contained in the foundation and pathway standards.

NCTM Standards

- Students understand the meaning of equivalent forms of expressions, equations, inequalities, and relations [*Algebra*]
- Students write equivalent forms of equations, inequalities, and systems of equations and solve them with fluency—mentally or with paper and pencil in simple cases and using technology in all cases [*Algebra*]
- Students use symbolic algebra to represent and explain mathematical relationships [*Algebra*]
- Students build new mathematical knowledge through problem solving [*Problem Solving*]
- Students solve problems that arise in mathematics and in other contexts [*Problem Solving*]
- Students monitor and reflect on the process of problem solving [*Problem Solving*]
- Students communicate their mathematical thinking coherently and clearly to peers, teachers, and others [*Communication*]
- Students use the language of mathematics to express mathematical ideas precisely [*Communication*]
- Students recognize and use connections among mathematical ideas [*Connections*]
- Students create and use representations to organize, record, and communicate mathematical ideas [*Representation*]
- Students select, apply, and translate among mathematical representations to solve problems [*Representation*]