



Prealgebra and Elementary Algebra

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Alta Prealgebra and Elementary Algebra combines material from alta Prealgebra and alta Elementary Algebra to allow for more flexible curricula in early and developmental math programs. To develop the course, Knewton used three main sources of content: Openstax, videos created by a Math Professor we have partnered with, and a team of internal and external Subject Matter Experts. The SMEs come from diverse backgrounds and are all academics in the field of mathematics.

Alta Prealgebra has two instructional sequences for every learning objective, giving students multiple opportunities to learn new concepts. Between our OpenStax instructional texts, our videos, and a network of SMEs, we were able to solicit ideas from math instructors and students. Alta Prealgebra and Elementary Algebra covers the typical breadth of prealgebra and elementary algebra topics, and also provides the necessary depth to ensure the course is manageable and engaging for instructors and students alike.

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16.4 Solve Applications Modeled by Quadratic Equations

- Problem Solving with Quadratic Equations
 - Solve applications modeled by quadratic equations that may require the quadratic formula
 - Solve geometric applications that may require the quadratic formula

16.5 Graphing Quadratic Equations

- Parabolas and Their Properties
 - Graph a quadratic equation by plotting points and recognize the direction a parabola opens (*11)
 - Find the axis of symmetry and vertex of a parabola
 - Find the intercepts of a parabola
- Graphing Quadratic Equations
 - Graph a quadratic equation in two variables by using key points (*22)
 - Find the maximum or minimum of a quadratic equation and use it in applications