

Prealgebra and Elementary Algebra | Table of Contents

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Chapter 16: Quadratic Equations

16.1 Solve Quadratic Equations Using the Square Root Property

- Solving Quadratic Equations Using the Square Root Property
 - Solve a quadratic equation using the square root property (20)
 - Solve a quadratic equation with a binomial as the quadratic term using the square root property
 - Solve a quadratic equation where factoring results in a perfect square binomial

16.2 Solve Quadratic Equations by Completing the Square

- Solving Quadratic Equations by Completing the Square
 - Complete the square of a binomial expression (20)
 - Solve a quadratic equation with a leading coefficient of 1 by completing the square (20)
 - Solve a quadratic equation with a leading coefficient greater than 1 by completing the square (20)

16.3 Solve Quadratic Equations Using the Quadratic Formula

- Solving Quadratic Equations with the Quadratic Formula
 - Solve a quadratic equation using the quadratic formula with 2 real solutions (20)
 - Solve a quadratic equation using the quadratic formula with 1 or 0 real solutions (20)
 - Use the discriminant to predict the number of solutions of a quadratic equation (20)

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
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- 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
 - Find the axis of symmetry and vertex of a parabola (20)
 - Find the intercepts of a parabola (20)
 - Graphing Quadratic Equations
 - Graph a quadratic equation in two variables by using key points
 - Find the maximum or minimum of a quadratic equation and use it in applications (20)
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