College Algebra Fundamentals

Section P-2 (Part 4): Solving Equations

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objectives**:

* Students will be able to solve quadratic equations by completing the square.
* Students will be able to solve quadratic equations by using the quadratic formula.

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| **Main Idea** | **Notes** |
| **Vocabulary:****Example 1: Creating a Perfect Square Trinomial****Example 2: Creating a Perfect Square Trinomial** | What do we want to create when completing the square?Examples: Why are these called perfect square trinomials?In the following perfect square trinomial, the constant term is missing: x2 + 14x + \_\_\_\_How do we find the missing constant term? What is it?Find the missing term.1. x2 + 20x + \_\_\_\_\_\_\_
2. x2 - 4x + \_\_\_\_\_\_\_\_
3. x2 + 5x + \_\_\_\_\_\_\_
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| **Vocabulary:** | Solving Quadratic Equations by Completing the Square:(use x² + 8x + 20 = 0 as an example for each of your steps)Step 1:Step 2:Step 3:Step 4:Quadratic Formula: |
| **Vocabulary:** |
| **Example 3: Solve Using the Quadratic Formula** | 1. 3x2 – 5x + 2 = 0
2. 2x2 – 5x – 9 = 0
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| **Homework:** |  |