

## Solving Quadratic Equations Using Algebraic Methods

Name:

Date:

### Vocabulary Review:

In your own words, define each of the following vocabulary terms.

- Quadratic Equation
- Coefficient
- Root
- Zeros

**Apply New Learning:**

For questions #1–7, decide whether to use factoring, completing the square, or the quadratic equation to solve the problem. State the method you will use, and explain your choice. Then solve the equation. Use each method at least once.

1. Solve  $x^2 + 5x + 6 = 0$ .

2. Solve  $x^2 - 3 = 2x$ .

3. Solve  $(x + 2)(x + 3) = 12$ .

4. Solve  $x^2 + 6x - 7 = 0$ .

5. Solve  $x^2 - 6x + 9 = 25$ .

6. Solve  $x^2 + 8x - 4 = 0$ .

7. Solve  $x^2 - 4x - 8 = 0$ .