Solving Quadratics

Factoring

Example 1: $2x^2 = 4x$

Example 2: $x^2 + 7x = -10$

Example 3: $3x^2 - 15x - 18 = 0$

Example 4: $6x^2 + 7x = 3$

Quadratic Formula

Example 8: $x^2 + 1 = 4x$

Example 9: $x^2 - 6x + 10 = 0$

Mixed Practice

Solve each quadratic by factoring or the quadratic formula.

1. $2x^2 = 4x$	2. $x^2 - 4x = 12$
3. $2x^2 - x - 10 = 0$	4. $4x^2 - 20x - 56 = 0$
5. $10x^2 - 25x = 0$	6. $2x^2 + 5x - 10 = 2x$
7. $x^2 - 100x + 900 = 0$	8. $8x^2 + x - 75 = 0$

Graphs of Quadratic Functions

Standard form:

Graphing in Standard Form

- **How to find *x*-intercepts:**
- **How to find *y*-intercept:**
- **How to find vertex:**

Example 1: $y = 3x^2 + 9x$

Example 2: $y = 2x^2 - 4x + 4$

Example 3: $y = -2x^2 + 8x - 6$

Example 4: $y = x^2 - 2x - 7$

Example 5: $y = -x^2 + 6x - 9$