

Name \_\_\_\_\_ Date \_\_\_\_\_

**Solving Quadratic Equations by Quadratic Formula**

When  $\boxed{ax^2 + bx + c = 0}$ , you can use Quadratic Formula  $\boxed{x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}}$  to find solutions.

Before we solve Quadratic Formula, we need to practice simplifying radicals.

1.  $\sqrt{(-4)^2 - 4(1)(-2)}$

2.  $\sqrt{(2)^2 - 4(-2)(12)}$

3.  $\frac{3 \pm \sqrt{25}}{4}$

4.  $\frac{-2 \pm \sqrt{20}}{5}$

5.  $\frac{4 \pm \sqrt{18}}{4}$

6.  $\frac{6 \pm \sqrt{27}}{12}$

Use the quadratic formula to find the zeros.

7.  $f(x) = x^2 - 6x + 3$

8.  $f(x) = x^2 + 9x + 10$

9.  $2x^2 - 4 = 5x$

10.  $2x^2 - 4x = 1$