

## Lesson 33      Using the Quadratic Formula to Solve Quadratic Equations

**Quadratic Formula:**      For  $ax^2 + bx + c = 0$ , where  $a \neq 0$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

**Steps to Follow:**      for  $ax^2 + bx + c = 0$

1. List a, b, and c
2. Plug the respective values into the quadratic formula
3. Simplify the values under the radical
4. Write the expression as 2 values.

One expression with a positive radical, and one expression with a negative radical

5. Simplify each expression, if possible.

Examples: Solve the quadratic equations using the quadratic formula.

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

2.  $x^2 - 2x - 8 = 0$

3.  $2x^2 + 4x - 7 = 0$