

**QCPR Example**  
**Solving Quadratics**  
**Using the Quadratic Formula**

$$x^2 + 8 = 6x$$

Quadratic Formula ~

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

$$ax^2 + bx + c = 0$$

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1. Put everything on one side, zero on the other side
2. Identify values of  $a$ ,  $b$  and  $c$
3. Substitute those values into formula
4. Evaluate the formula

1.  $x^2 - 6x + 8 = 0$

2.  $a = 1$ ,  $b = -6$ ,  $c = 8$

3.  $x = \frac{-(-6) \pm \sqrt{(-6)^2 - 4(1)(8)}}{2(1)}$

4.  $= \frac{+6 \pm \sqrt{36 - 32}}{2}$

$$= \frac{6 \pm \sqrt{4}}{2} = \frac{6 \pm 2}{2}$$

$$x = 2 \text{ or } x = 4$$