

1. Solving Quadratic Equations By Rearranging & Taking Square Roots

When Should I Solve Using This Method?

a) When the equation is in vertex form

b) When the equation is in standard form with no "bx" term

How Do I Use This Method?

1) isolate the squared term

2) square root both sides (remember that your answer will be both + and -)

3) solve for x

$x^2 = 25$	$2x^2 = 98$
$x^2 + 64 = 0$	$9x^2 - 16 = 0$
$x^2 + 9 = 25$	$(x - 2)^2 = 25$
$(x - 2)^2 + 9 = 25$	$4(x - 2)^2 + 9 = 25$

HW: Solve and check the equations on the accompanying worksheet and study the comparison table from this note.

WORKSHEET: Solving Quadratic Equations by Rearranging & Taking Square Roots

Solve the following equations for x and check your solutions using *substitution*.

$$200 = 8x^2$$

$$-4x^2 + 84 = 4$$

$$(x+1)^2 - 9 = 0$$

$$-4(x+2)^2 + 16 = 0$$

$$(x+2)^2 = 14$$

$$-3(x+5)^2 + 4 = -23$$

$$7x^2 - 63 = 0$$

$$3(x+11)^2 - 12 = 0$$

$$-10x^2 + 810 = 0$$

$$-800 = -8x^2$$