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.

 Name: _____

WORKSHEET: Solving Quadratic Equations by Rearranging & Taking Square Roots

Solve the following equations for $x \in R$ and check your solutions using *substitution*.

$200 = 8x^2$

$-4x^2 + 84 = 4$

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

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

$(x+2)^2 = 14$

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

$7x^2 - 63 = 0$

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

$-10x^2 + 810 = 0$

$-800 = -8x^2$