Name_____

Date_____

Advanced Algebra

Unit 7 Assignment #4 Review of Quadratics

Use the Complete the square method to find:

a) **Find the roots (solutions of the given quadratic)**
b) **Write the following in vertex form**

Given	Vertex Form	Solutions to the Quadratic
$y= x^2 + 8x-18$ $x^2+8x+16)-18-16$ $(x+4)^2-34$	$y=(x+4)^2-34$	$x=-4\pm\sqrt{34}$
$y=x^2-22x+44$ $x^2-22x+121)-121+44$ $(x-11)^2-77$	$y=(x-11)^2-77$	$x=11\pm\sqrt{77}$
$y=x^2+12x-16$ $x^2+12x+36)-36-16$ $(x+6)^2-52$	$y=(x+6)^2-52$	$x=-6\pm\sqrt{52}$

VERTEX FORM Solutions to Q on

$y=x^2-28x+98$ $x^2-28x+196)-196+98$ $(x-14)^2-98$	$y=(x-4)^2-98$	$x=4\pm\sqrt{98}$
$y=x^2-14x-12$ $x^2-14x+49)-49-12$ $(x-7)^2-61$	$y=(x-7)^2-61$	$x=7\pm\sqrt{61}$
$y=x^2-100x+1200$ $x^2-100x+2500)-2500+1200$ $(x-50)^2-1300$	$y=(x-50)^2-1300$	$x=50\pm\sqrt{1300}$
$y=x^2+19x-16$ $x^2+19x+90.25)-90.25-16$ $(x+9.5)^2-106.25$	$y=(x+9.5)^2-106.25$	$x=-9.5\pm\sqrt{106.25}$
$y=x^2+21x-28$ $x^2+21x+110.25)-110.25-28$ $(x+10.5)^2-138.25$	$y=(x+10.5)^2-138.25$	$x=-10.5\pm\sqrt{138.25}$