Name _____ Date _____ Period Answer Key

LT 3.4 & 3.5 Quick Check #3 LT 3.4-3.5a

Good luck!

LT 3.4 Solve Quadratic Equations by Graphing Score: 4

1) Solve each equation by using a table and the axis of symmetry.

$f(x) = x^2 - 6x + 9$

a) Show your work here.

+1

$$x = \frac{-b}{2a} = \frac{-(-6)}{2(1)} = 3$$

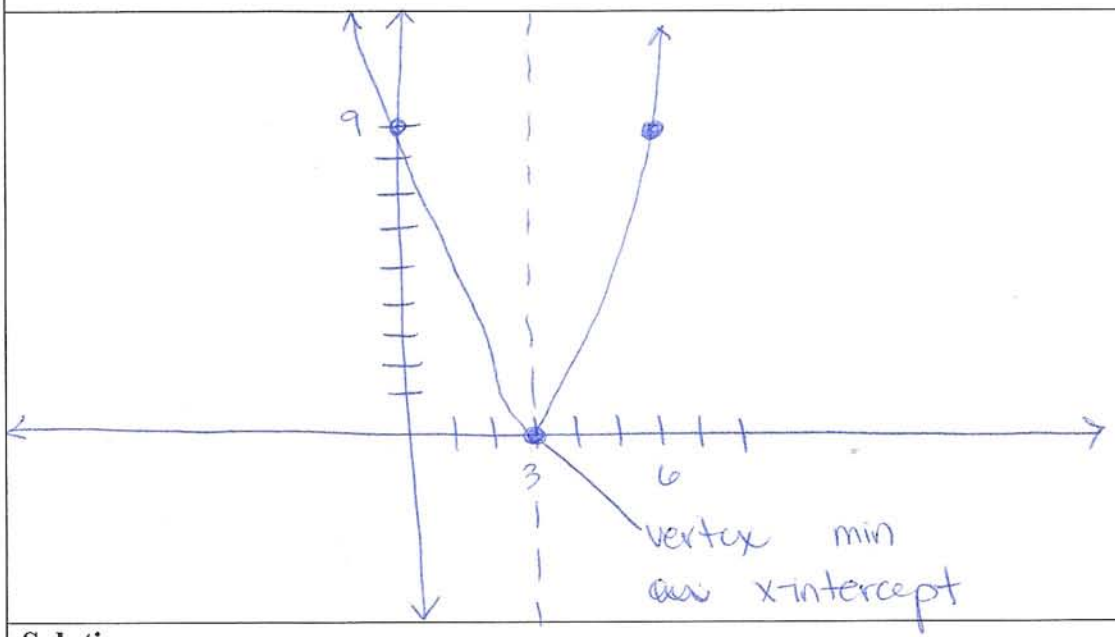
+1

X	x^2-6x+9	f(x)	(x, f(x))
0		9	(0, 9)
1			
~~2~~			
3	$3^2-6(3)+9$	0	(3, 0)
4			
5			
6		9	(6, 9)

a) Graph the quadratic function.

+1

b) Label the vertex
Label the y-intercept
Label the x- intercept
Label the axis of symmetry
Label the maximum or minimum



+1

Solution:

LT 3.4 & 3.5 Quick Check #3 LT 3.4-3.5a

Good luck!

LT 3.5 Solving Quadratic Equations by Factoring Score: 4

2) Write a quadratic equation in factored form and standard form given the following roots.

a) 3 and 6

$x=3 \quad x=6$

+1 $(x-3)(x-6)=0$ f.

$x^2-6x-3x+18=0$

+1 $x^2-9x+18=0$ st.

b) 0 and -4

$x=0 \quad x=-4$

+1 $(x+0)(x+4)=0$ fa.

$x^2+4x+0x+0=0$

+1 $x^2+4x+0=$ st.

Name _____ Date _____ Period Answer Key

LT 3.4 & 3.5 Quick Check #3 LT 3.4-3.5

Good luck!

LT 3.4 Solve Quadratic Equations by Graphing Score: 4

1) Solve each equation by using a table and the axis of symmetry.

$f(x) = -x^2 - 6x - 9$

a) Show your work here.

$$x = \frac{-b}{2a} = \frac{-(-6)}{2(-1)} = -3$$

+1

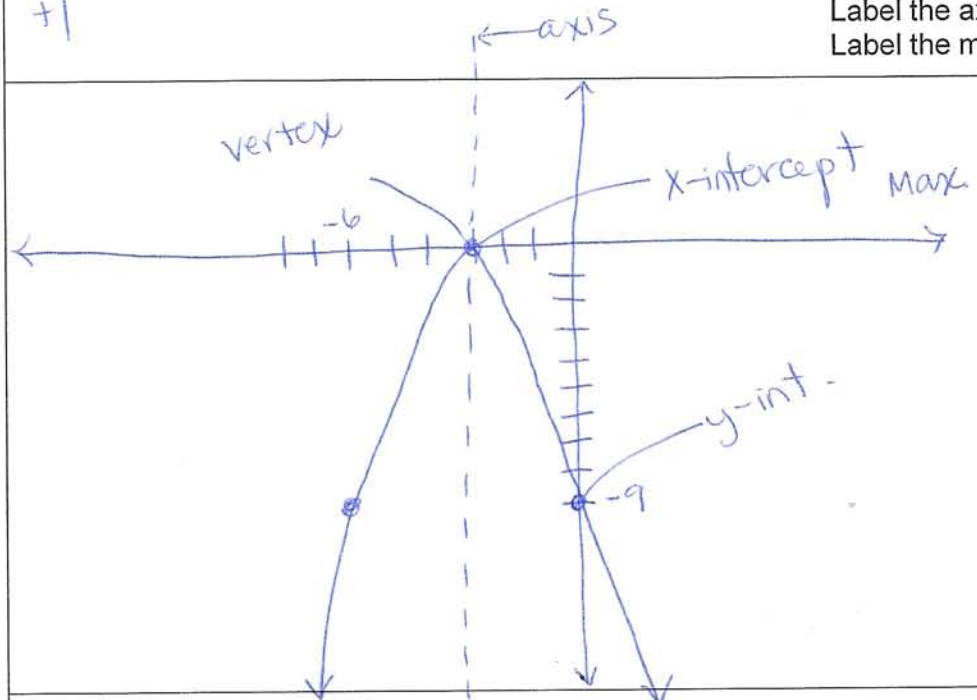
X	$-x^2-6x-9$	f(x)	(x, f(x))
-6		-9	(-6, -9)
-5			
-4			
-3	$-(-3)^2-6(-3)-9=$	0	(-3, 0)
-2			
-1	$-(-1)^2-6(-1)-9$		
0		-9	(0, -9)

+1

a) Graph the quadratic function.

b) Label the vertex
Label the y-intercept
Label the x- intercept
Label the axis of symmetry
Label the maximum or minimum

+1



Solution: $x = -3$

+1

LT 3.4 & 3.5 Quick Check #3 LT 3.4-3.5

Good luck!

LT 3.5 Solving Quadratic Equations by Factoring Score: 4

2) Write a quadratic equation in factored form and standard form given the following roots.

a) 4 and -5

$x=4 \quad x=-5$

+1 $(x+-4)(x+5)=0$ factored form

$x^2+5x-4x-20=0$

+1 $x^2+x-20=0$ standard form

b) -3 and -6

$x=-3 \quad x=-6$

+1 $(x+3)(x+6)=0$ factored form

$x^2+3x+6x+18=0$

+1 $x^2+9x+18=0$ standard form

LT 3.4 & 3.5 Quick Check #3 LT 3.4-3.5H

Good luck!

LT 3.5 Solving Quadratic Equations by Factoring *Score:* 4

2) Write a quadratic equation in <u>factored form</u> and <u>standard form</u> given the following roots.

a) -7 and 8

$x=-7 \quad x=8$

+1 $(x+7)(x-8)=0$ fa.

$x^2-8x+7x-56=0$

+1 $x^2-x-56=0$ st.

b) 1 and ½

$x=1 \quad x=1/2$

+1 $(x-1)(x-1/2)=0$ fac.

$x^2-1/2x-x+1/2=0$

+1 $x^2-3/2x+1/2=0$ st.

Name _____ Date _____ Period Answer key

LT 3.4 & 3.5 Quick Check #3 LT 3.4-3.5H

Good luck!

LT 3.4 Solve Quadratic Equations by Graphing Score: 4

1) Solve each equation by using a table and the axis of symmetry.

$f(x) = -x^2 + 6x - 8$

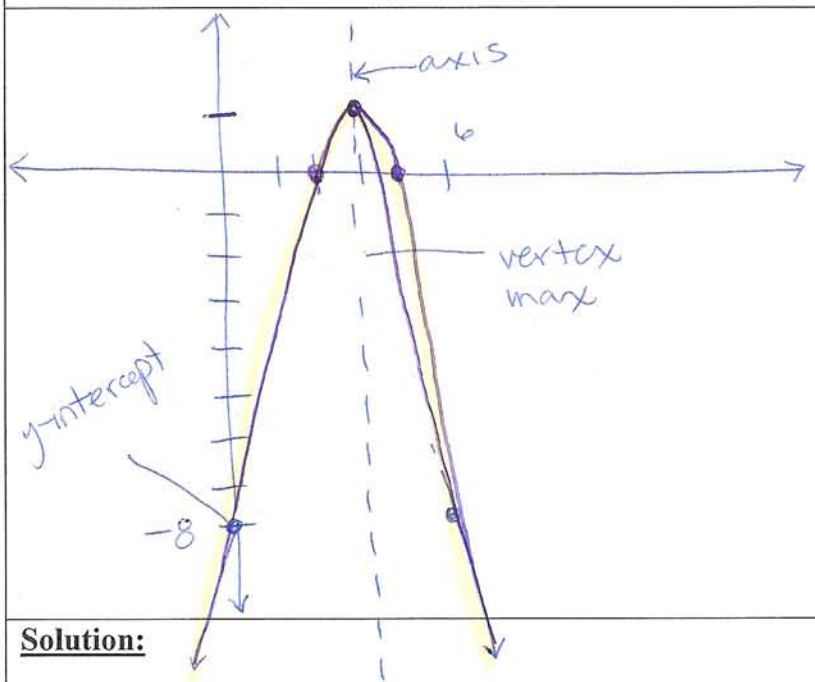
a) Show your work here.

$$x = \frac{-b}{2a} = \frac{-6}{2(-1)} = \frac{6}{2} = 3$$

X	$-x^2+6x-8$	f(x)	(x, f(x))
0	$-(0)^2+6(0)-8$	-8	(0, -8)
1	$-(1)^2+6(1)-8$	-3	
2	$-(2)^2+6(2)-8$	0	
3	$-(3)^2+6(3)-8$	1	(3, 1)
4		0	
5		-3	
6		-8	(6, -8)

a) Graph the quadratic function.

b) Label the vertex
Label the y-intercept
Label the x- intercept
Label the axis of symmetry
Label the maximum or minimum



Solution:

No solution x = 3