

Name _____

Period _____ Date _____

Homework 5.1.4

1. Based on the tables below, what are the x- and y-intercepts of the corresponding graphs? Use the fact that the relationship shown in the table in part (b) is quadratic to write an equation to represent the relationship.

a.

x	y
3	0
0	16
-5	0
-1	-8
6	22
3	0

b.

x	y
7	-27
1	0
10	-67.5
0	-2.5
2.5	0
-7	-76

c.

x	y
0	-16
-5	11
3	-2
8	0
13	27
-6	14

x-intercept(s) _____

y-intercept _____

x-intercept(s) _____

y-intercept _____

Equation: _____

x-intercept(s) _____

y-intercept _____

2. Solve the equations. Check your solutions.

a. $(6x-18)(3x+2)=0$

$x^2-7x+10=0$

c. $2x^2+2x-12=0$

d. $4x^2-1=0$

e. $x^2=9$

f. $x^2-2x+1=0$

3. What values of x will make the following equations true?

a. $x^2=64$

b. $(x+1)^2=64$

c. $(x+1)^2-64=0$

4. To paint a house, Travis leans a ladder against the wall. If the ladder is 16 feet long and it makes contact with the house 14 feet above ground, what angle does the ladder make with the ground? Draw a diagram of this situation and show all work.

5. Determine the measures of x , y and z at right. Justify each conclusion using geometric relationships.

