Get out your lesson 2.8 and pg. 52 - they are both due today, we will go over any questions you have after the bell rings.

14. $y = \frac{1}{2}(x-7)(x-7)$

$\frac{1}{2}(x-7)^2 + 0$

a. Vertex: (7,0)

b. x-inter(s) (7,0) & (7,0)

c. y-inter (0,24.5)

d. Stretch $\frac{1}{2}$

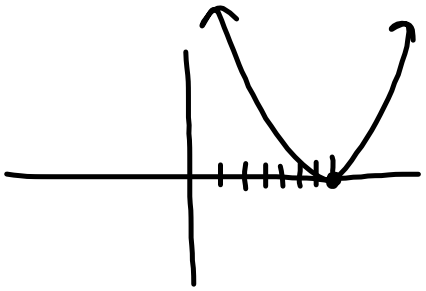
x-int:

$0 = \frac{1}{2}(x-7)(x-7)$

$x-7=0$ & $x-7=0$

$+7\ +7$ $+7\ +7$

$x=7$ $x=7$



Vertex: (7,0)

y-int:

$y = \frac{1}{2}(0-7)(0-7)$

$= \frac{1}{2}(-7)(-7)$

$= \frac{1}{2}(49)$

$= \frac{49}{2} = 24.5$

$x = \frac{7+7}{2} = \frac{14}{2} = 7$

$y = \frac{1}{2}(7-7)(7-7)$

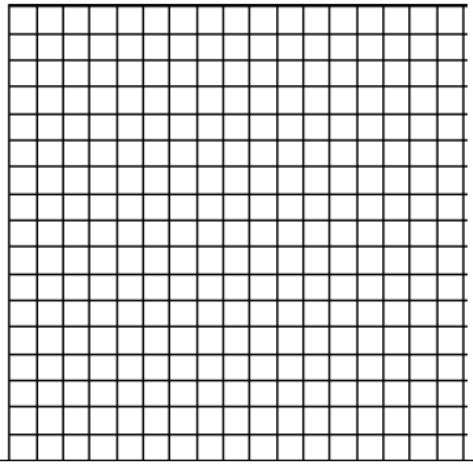
$= \frac{1}{2} \cdot 0 \cdot 0$

$= 0$

2.9 I've Got a Fill-in

A Practice Understanding Task

For each problem below, you are given a piece of information that tells you a lot. Use what you know about that information to fill in the rest.

1.	You get this:	Fill in this:
	$y = x^2 - x - 12$ -12 -1	Factored form on the equation: Graph of the equation: 

2.	You get this:	Fill in this:
	$y = x^2 - 6x + 3$	Vertex form of the equation:

$y = x^2 - 6x + 3$ → y-int.

1) make y=0 & move c to L side: $0 = x^2 - 6x + 3$

$-3 \quad -3$

$-3 = x^2 - 6x$

2) add $\left(\frac{b}{2}\right)^2$ to both sides: $\left(\frac{-6}{2}\right)^2 = 9$

$+9 \quad +9$

$6 = x^2 - 6x + 9$

3) Reverse / foil: $6 = (x-3)(x-3)$

$6 = (x-3)^2$

$-6 \quad -6$

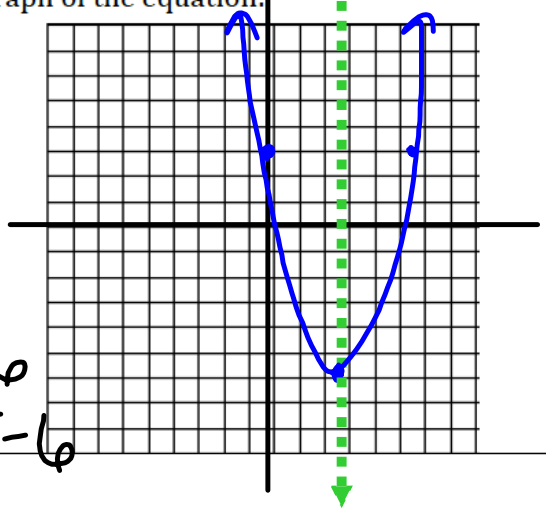
$0 = (x-3)^2 - 6$

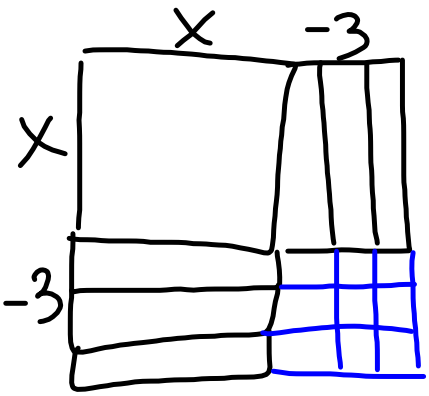
4) move c back to R side: $f(x) = (x-3)^2 - 6$

$f(x) = (x-3)^2 - 6$

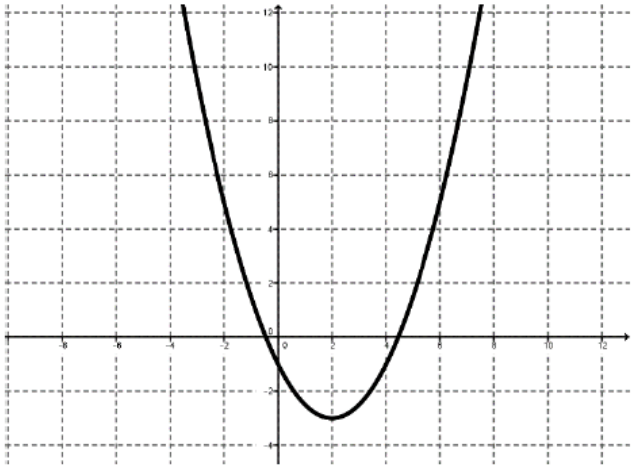
vertex: (3, -6)

Graph of the equation:





HW: On pgp. 53-56, finish 3 #5-9 on pgp. 57-59

3. You get this:	Fill in this:
	Vertex form of the equation:
	Standard form of the equation:

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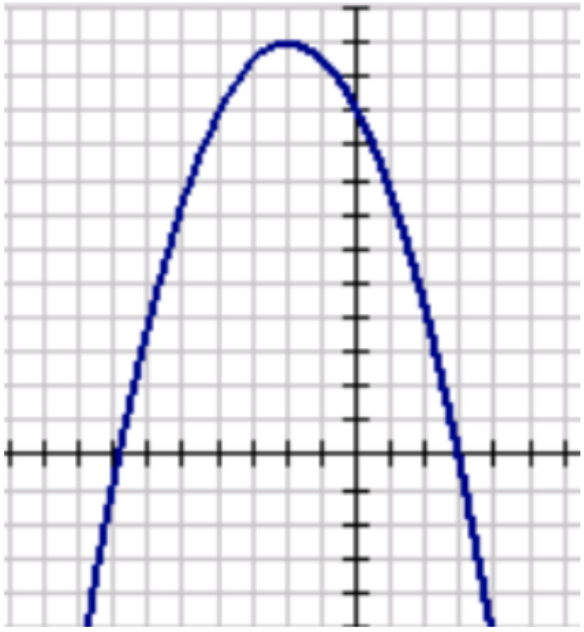
4.	You get this:	Fill in this:
		Factored form of the equation:
		Standard form of the equation:

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5.	You get this:	Fill in this:
	$y = -x^2 - 6x + 16$	Either form of the equation other than standard form.
		Vertex of the parabola
		x-intercepts and y-intercept

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6.	You get this:	Fill in this:
	$y = 2x^2 + 12x + 13$	Either form of the equation other than standard form.
		Vertex of the parabola
		x-intercepts and y-intercept

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7.	You get this:	Fill in this:
	$y = -2x^2 + 14x + 60$	Either form of the equation other than standard form.
		Vertex of the parabola
		x-intercepts and y-intercept

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Homework

Finish 2.9 "Ready, Set, Go"