

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.

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Example: $(2x + 3)(5x - 7)$

$(2x + 3)$	$(5x - 7)$	
$10x^2$	$-14x$	$= 10x^2 + x - 21$
$+15x$	-21	

1. $(3x - 4)(7x - 5)$

$3x$	-4
$7x$	$21x^2 - 28x$
-5	$-15x$
	20

2. $(9x + 2)(x + 6)$

3. $(4x - 3)(3x + 11)$

4. $(7x + 3)(7x - 3)$

5. $(3x - 10)(3x + 10)$

6. $(11x + 5)(11x - 5)$

7. $(4x + 5)^2$

8. $(x + 9)^2$

9. $(10x - 7)^2$

8.50 x 11.00 in

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4. $(7x + 3)(7x - 3)$

5. $(3x - 10)(3x + 10)$

6. $(11x + 5)(11x - 5)$

7. $(4x + 5)^2 = (4x + 5)(4x + 5)$

$4x + 5$


$4x$	
$+5$	

8. $(x + 9)^2$

9. $(10x - 7)^2$

10. The "like-term" boxes in #'s 7, 8, and 9 reveal a special pattern. Describe the relationship between the middle coefficient (b) and the coefficients (a) and (c).

SECONDARY II // MODULE 2
 Mathematics Vision Project
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 mathematics vision project

8.50 x 11.00 in

16. $y = \frac{3}{5}(x - 25)(x - 9)$

a. Vertex: $(17, -38.4)$

b. x-inter(s) $(25, 0)$ & $(9, 0)$

c. y-inter $(0, 135)$

d. Stretch $\frac{3}{5}$ $(\frac{3}{5})$

e. Axis of Symmetry: $x = 17$

Handwritten notes on the right side of the page:

y-int:
 $y = \frac{3}{5}(0-25)(0-9)$
 $y = \frac{3}{5}(-25)(-9)$
 $y = 135$

vertex:
 $x = \frac{25+9}{2} = \frac{34}{2} = 17$
 $y = \frac{3}{5}(17-25)(17-9)$

(17) $y = \frac{3}{4}(x-3)(x+3)$

Vertex: $(0, -6.75)$

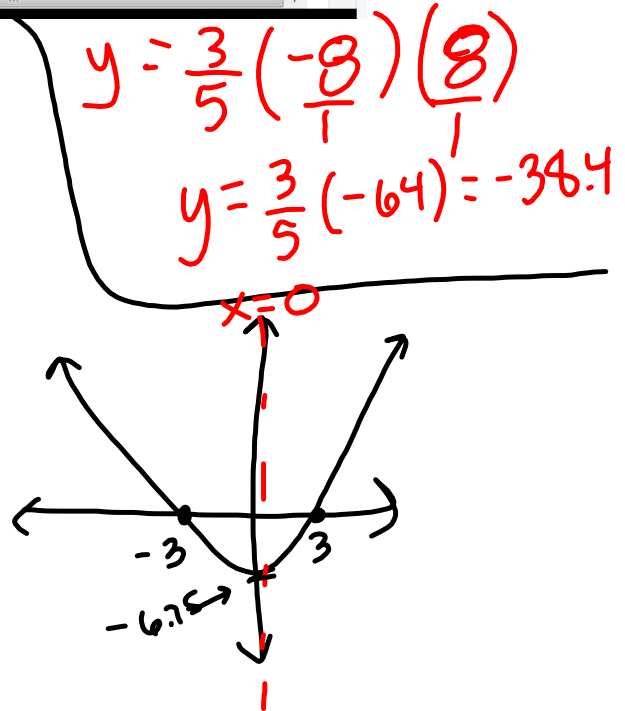
$x = \frac{-3+3}{2} = \frac{0}{2} = 0$

$y = \frac{3}{4}(0-3)(0+3)$

$= \frac{3}{4}(-9)$

$= \frac{-27}{4}$

$= -6\frac{3}{4}$

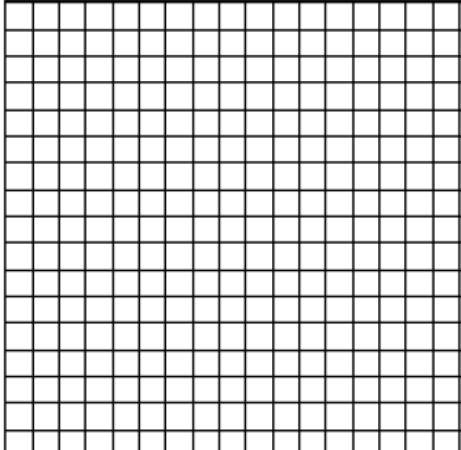


2.9 I've Got a Fill-in


A Practice Understanding Task

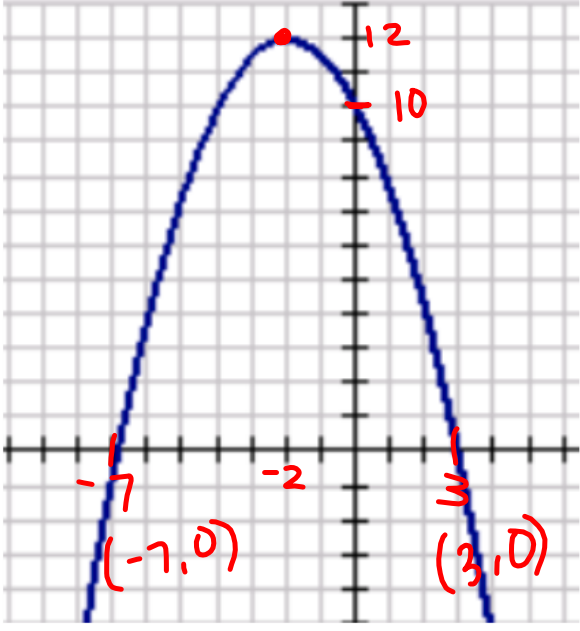
For each problem below, you are given a piece of information that tells you a lot. Use what you know about that information to fill in the rest.



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

<p>2. You get this:</p>	<p>Fill in this:</p>
<p>$y = x^2 - 6x + 3 \rightarrow y\text{-int.}$</p> <p>① move C to other side. $0 = x^2 - 6x + 3$ $\quad\quad\quad -3$</p> <hr/> <p>② add $-3 = x^2 - 6x$ $\quad\quad +9$ $(\frac{b}{2})^2$ to both sides $(\frac{-6}{2})^2 = 9$</p> <p>$6 = x^2 - 6x + 9$ $6 = (x-3)(x-3)$ $6 = (x-3)^2$</p> <hr/> <p>③ Reverse foil (factor) R side. $\quad\quad\quad -6$ $0 = (x-3)^2 - 6$</p> <p>④ move everything to R</p>	<p>Vertex form of the equation:</p> <p>$f(x) = (x-3)^2 - 6$</p> <p>Graph of the equation:</p> <p>vertex: (3, -6)</p>

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

4. You get this:	Fill in this:
	Factored form of the equation: $f(x) = -\frac{1}{2}(x+7)(x-3)$
	Standard form of the equation: $f(x) = -\frac{1}{2}(x^2 - 3x + 7x - 21)$ $f(x) = -\frac{1}{2}(x^2 + 4x - 21)$ $f(x) = -\frac{1}{2}x^2 - 2x + \frac{21}{2}$

$(-2, 12)$ $(0, 10)$
 $(-7, 0)$
 $(3, 0)$

HW: Have 5 finished of
 1-7 on pgs 53-56
 and 5-9 on pgs. 57-59

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

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

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

Homework

Finish 2.9 "Ready, Set, Go"