Questions on 2.8 HW? 2.7 HW is due today and we are quizzing.

Multiply the following binomials using the given two-way table to assist you.

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

$(5x - 7)$

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

$= 10x^2 + x - 21$

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

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

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

    $4x \quad -3$

$3x$	$12x^2$	$-9x$
$+11$	$44x$	-33

    $12x^2 + 35x - 33$

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

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

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

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

8. $(x + 9)^2$

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

51 / 59　　　200%

$(x + 4)$　　　16. $y = \frac{3}{5}(x - 25)(x - 9)$　　x-intercept → make y=0

　　　　　a. Vertex: $(17, -38.4)$　　$0 = \frac{3}{5}(x-25)(x-9)$

　　　　　　　　　　　　　　　　　　x-25=0

　　　　　b. x-inter(s) $(25,0); (9,0)$　　if x=25,　　x=25

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

　　　　　c. y-inter $(0, 135)$　　$y = \frac{3}{5}(0)(16)$

　　　　　　　　　　$3/5$　　$y = 0$ → (25,0)

　　　　　d. Stretch $3/5$

　　　　　　　　　　　　　　if x=9,　　x-9=0
　　　　　　　　　　　　　　$y = \frac{3}{5}(9-25)(9-9)$　　x=9

$+ 5)$　　　19. $y = \frac{2}{3}(x + 10)(x + 10)$　　$y = \frac{3}{5}(-16)(0)$

　　　　　a. Vertex: _____　　$y = 0$ → (9,0)

y-intercept, make x=0　　vertex: $(17, -38.4)$

$y = \frac{3}{5}(0-25)(0-9)$　　$\frac{9+25}{2} = \frac{34}{2} = 17 = x$

$y = \frac{3}{5}(-25)(-9)$　　$y = \frac{3}{5}(17-25)(17-9)$

$y = -15(-9)$　　$y = \frac{3}{5}(-8)(8)$

$y = 135 \to (0,135)$　　$y = \frac{3}{5}(-64)$

　　　　　　　　　　$y = -38.4$

64

_____

_____

_____

_____

24. $y = -3(x-2)^2 + 48$

a. Vertex: $(2, 48)$

b. x-inter(s) $(6,0), (-2,0)$

c. y-inter: $(0, 54)$

d. Stretch -3

25. $y = (x+6)^2 - 1$

a. Vertex: $(-6, -1)$

b. x-inter(s) _____

c. y-inter _____

d. Stretch _____

hat the parabolas in problems 11, 12, & 13 are the same as the ones

5 respectively? If you didn't, go back and compare the answers in

lems 23, 24, & 25.

y-intercept, make $x=0$

$y = -3(0-2)^2 + 48$

$y = -3(-2) + 48$

$y = 6 + 48$

$y = 54 \rightarrow (0, 54)$

x-intercept, make $y = 0$

$0 = -3(x-2)^2 + 48$

$-48 \qquad\qquad -48$

$$\frac{-48 = -3(x-2)^2}{-3 \qquad -3}$$

$\sqrt{16} = \sqrt{(x-2)^2}$

$\pm 4 = x - 2$

$\underline{+2 \qquad\qquad +2}$

$2 \pm 4 = x$

$x = 2 + 4 = 6 \rightarrow (6, 0)$

$x = 2 - 4 = -2 \rightarrow (-2, 0)$

Oct 14-8:23 AM

4

Quadratics Quiz #4: Factoring Quadratics

Factor the following into the factors of c that add up to b in $f(x)=ax^2+bx+c$

1) $x^2 + 6x + 8 = (x\quad)(x\quad)$

2) $x^2 + 5x - 14 = (x\quad)(x\quad)$

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:

You get this:

$b = -1$ $c = -12$

$$y = x^2 - x - 12$$

$\bullet -12$	SUM
$-3, 4$	$-3 + 4 = 1$
$3, -4$	$3 + -4 = -1$
$-6, 2$	$-6 + 2 = -4$
$6, -2$	$6 + -2 = 4$
$-12, 1$	$-12 + 1 = -11$
$12, -1$	$12 + -1 = 11$

(row $3, -4$ circled)

y-intercept

$y = 0^2 - 0 - 12$
$y = -12$
$(0, -12)$

Fill in this:

Factored form on the equation:

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

x-intercepts:
$0 = (x+3)(x-4)$
$x = -3, 4$ $(-3, 0)$ $(4, 0)$

Graph of the equation:

Vertex: $\frac{-3+4}{2} = \frac{1}{2}$

HW: pg.53-56 - pick 4 more from 2,3,4,5,6,7

SKIP: pg 57-59
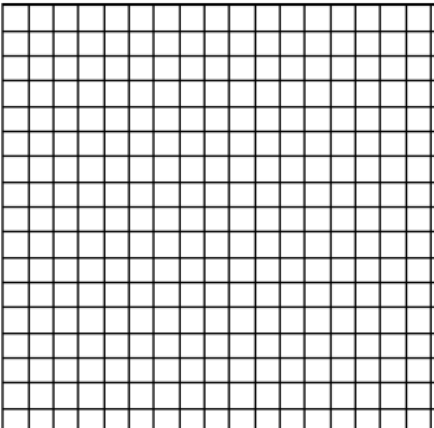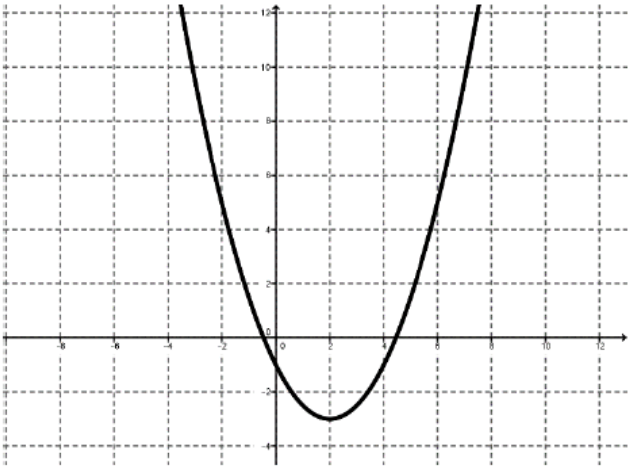
If $x = -3$
$y = (-3+3)(-3-4)$
$= 0(-7) = 0$

If $x = 4$
$y = (4+3)(4-4)$
$y = 7(0) = 0$

Mar 28-10:02 AM

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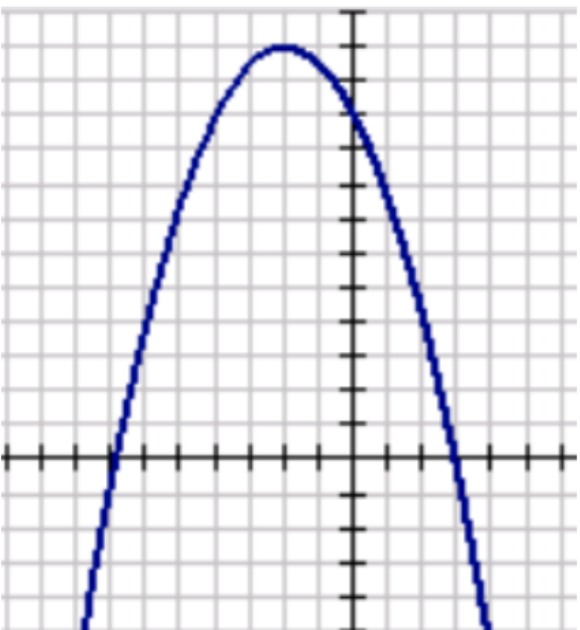
2.	You get this:	Fill in this:
	$$y = x^2 - 6x + 3$$	**Vertex form of the equation:**
		Graph of the equation:

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:
		Standard form of the equation:

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

Mar 28-10:07 AM

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

Mar 28-10:07 AM

Homework

Finish 2.9 "Ready, Set, Go"

Mar 28-9:36 AM