

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

SM2 Module 2 SE.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools SM2 Module 2 SE.p... x

50 / 59 150%

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. $(3x - 4)(7x - 5) = 21x^2 - 13x + 20$

$\begin{array}{|c|c|} \hline 3x & -4 \\ \hline 7x & 21x^2 - 28x \\ \hline -5 & -15x & 20 \\ \hline \end{array}$

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

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

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

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

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

8.50 x 11.00 in

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

a. Vertex: $(7, 0)$

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

c. y-inter $(0, 24.5)$

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

15. $y = -\frac{1}{2}(x -$

a. Vertex: _____

b. x-inter(s) _____

c. y-inter: _____

d. Stretch _____

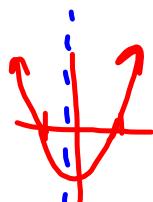
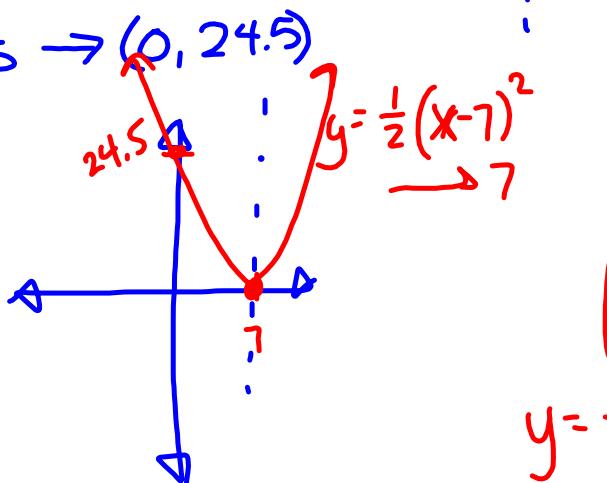
x-intercepts:
make $y=0$,
 $0=\frac{1}{2}(x-7)(x-7)$
 $x-7=0$
 $x=7$
If $x=7$,
 $y = \frac{1}{2}(7-7)(7-7)$
 $y = \frac{1}{2}(0)(0)$
 $y = 0 \rightarrow (7, 0)$

y-intercepts, make $x=0$

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

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

$$y = 24.5 \rightarrow (0, 24.5)$$



$$\text{Vertex: } \frac{7+7}{2} =$$

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

$$(7, 0)$$

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

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

$$y = 0 \rightarrow (7, 0)$$

SM2 Module 2 SE.pdf - Adobe Acrobat Reader DC

File Edit View Window Help

Home Tools SM2 Module 2 SE.p... x

51 / 59 150% |

11. $y = 4(x - 2)(x + 6)$

a. Vertex: _____

b. x-inter(s) _____

c. y-inter _____

d. Stretch _____

12. $y = -3(x + 2)(x - 6)$

a. Vertex: _____

b. x-inter(s) _____

c. y-inter: _____

d. Stretch _____

13. $y = (x + 5)(x + 7)$

a. Vertex: _____

b. x-inter(s) $(-7, 0); (-5, 0)$

c. y-inter: _____

d. Stretch _____

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

a. Vertex: _____

b. x-inter(s) _____

c. y-inter _____

15. $y = -\frac{1}{2}(x - 8)(x + 4)$

a. Vertex: _____

b. x-inter(s) _____

c. y-inter: _____

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

a. Vertex: _____

b. x-inter(s) _____

c. y-inter _____

8.50 x 11.00 in

Home Tools SM2 Module 2 SE.p... 52 / 59 200% 100% 125% 150% 175% 200% 225% 250% 275% 300% 325% 350% 375% 400% 425% 450% 475% 500% 525% 550% 575% 600% 625% 650% 675% 700% 725% 750% 775% 800% 825% 850% 875% 900% 925% 950% 975% 1000% 1025% 1050% 1075% 1100% 1125% 1150% 1175% 1200% 1225% 1250% 1275% 1300% 1325% 1350% 1375% 1400% 1425% 1450% 1475% 1500% 1525% 1550% 1575% 1600% 1625% 1650% 1675% 1700% 1725% 1750% 1775% 1800% 1825% 1850% 1875% 1900% 1925% 1950% 1975% 2000% 2025% 2050% 2075% 2100% 2125% 2150% 2175% 2200% 2225% 2250% 2275% 2300% 2325% 2350% 2375% 2400% 2425% 2450% 2475% 2500% 2525% 2550% 2575% 2600% 2625% 2650% 2675% 2700% 2725% 2750% 2775% 2800% 2825% 2850% 2875% 2900% 2925% 2950% 2975% 3000% 3025% 3050% 3075% 3100% 3125% 3150% 3175% 3200% 3225% 3250% 3275% 3300% 3325% 3350% 3375% 3400% 3425% 3450% 3475% 3500% 3525% 3550% 3575% 3600% 3625% 3650% 3675% 3700% 3725% 3750% 3775% 3800% 3825% 3850% 3875% 3900% 3925% 3950% 3975% 4000% 4025% 4050% 4075% 4100% 4125% 4150% 4175% 4200% 4225% 4250% 4275% 4300% 4325% 4350% 4375% 4400% 4425% 4450% 4475% 4500% 4525% 4550% 4575% 4600% 4625% 4650% 4675% 4700% 4725% 4750% 4775% 4800% 4825% 4850% 4875% 4900% 4925% 4950% 4975% 5000% 5025% 5050% 5075% 5100% 5125% 5150% 5175% 5200% 5225% 5250% 5275% 5300% 5325% 5350% 5375% 5400% 5425% 5450% 5475% 5500% 5525% 5550% 5575% 5600% 5625% 5650% 5675% 5700% 5725% 5750% 5775% 5800% 5825% 5850% 5875% 5900% 5925% 5950% 5975% 6000% 6025% 6050% 6075% 6100% 6125% 6150% 6175% 6200% 6225% 6250% 6275% 6300% 6325% 6350% 6375% 6400% 6425% 6450% 6475% 6500% 6525% 6550% 6575% 6600% 6625% 6650% 6675% 6700% 6725% 6750% 6775% 6800% 6825% 6850% 6875% 6900% 6925% 6950% 6975% 7000% 7025% 7050% 7075% 7100% 7125% 7150% 7175% 7200% 7225% 7250% 7275% 7300% 7325% 7350% 7375% 7400% 7425% 7450% 7475% 7500% 7525% 7550% 7575% 7600% 7625% 7650% 7675% 7700% 7725% 7750% 7775% 7800% 7825% 7850% 7875% 7900% 7925% 7950% 7975% 8000% 8025% 8050% 8075% 8100% 8125% 8150% 8175% 8200% 8225% 8250% 8275% 8300% 8325% 8350% 8375% 8400% 8425% 8450% 8475% 8500% 8525% 8550% 8575% 8600% 8625% 8650% 8675% 8700% 8725% 8750% 8775% 8800% 8825% 8850% 8875% 8900% 8925% 8950% 8975% 9000% 9025% 9050% 9075% 9100% 9125% 9150% 9175% 9200% 9225% 9250% 9275% 9300% 9325% 9350% 9375% 9400% 9425% 9450% 9475% 9500% 9525% 9550% 9575% 9600% 9625% 9650% 9675% 9700% 9725% 9750% 9775% 9800% 9825% 9850% 9875% 9900% 9925% 9950% 9975% 10000%

23. $y = 4(x + 2)^2 - 64$
 a. Vertex: (2, -64)
 b. x-inter(s) (2, 0); (-6, 0)
 c. y-inter (0, -48)
 d. Stretch 4
 y-intercepts, make $x=0$,
 $y = 4(0+2)^2 - 64$
 $y = 4 \cdot 4 - 64$

24. $y = -3(x - 2)^2 + 48$
 a. Vertex: _____

25. y
 a. _____

26. Did you notice that the parabolas in problems 11, 12, & 13 are the same as problems 23, 24, & 25 respectively? If you didn't, go back and compare them.
 11, 12, & 13 and problems 23, 24, & 25.

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

-48

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

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

$\pm\sqrt{\frac{y - 48}{-3}} = x - 2$

$\frac{\pm\sqrt{\frac{y - 48}{-3}}}{\pm\sqrt{\frac{y - 48}{-3}}} = \frac{x - 2}{\pm\sqrt{\frac{y - 48}{-3}}}$

$\pm\sqrt{\frac{-3(y - 48)}{y - 48}} = x$

$(2, 0) \leftarrow 2 = -2 + 4 = x$

$(-6, 0) \leftarrow -6 = -2 - 4 = x$

Quadratics Quiz #4: Factoring Quadratics

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

$$1) x^2 + 11x + 10 = (x \quad)(x \quad)$$

$$2) x^2 + 9x - 22 = (x \quad)(x \quad)$$

2.9 I've Got a Fill-in

A Practice Understanding Task

HW: PICK 4 problems from 2, 3, 4, 5, 6, 7
on pg 53-56
*** SKIP PGS. 57-59 ***

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.



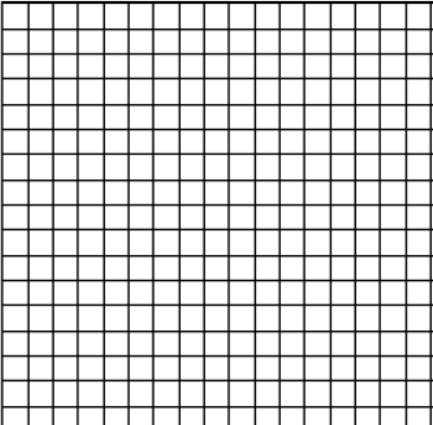
<p>1. You get this:</p> $b = -1 \quad c = -12$ $y = x^2 - x - 12$ <table border="1" style="margin-left: 20px; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: left;">Sum</th> </tr> </thead> <tbody> <tr> <td>-12</td> <td>-6 + 2 = -4</td> </tr> <tr> <td>-6, 2</td> <td>6 + -2 = 4</td> </tr> <tr> <td>6, -2</td> <td>if $x = -3$, $y = (-3+3)(-3-4)$</td> </tr> <tr> <td>-3, 4</td> <td>$y = 0(-7)$</td> </tr> <tr> <td>(3, -4)</td> <td>$y = 0$</td> </tr> <tr> <td>-1, 12</td> <td>$x = 4$, $y = (4+3)(4-4)$</td> </tr> <tr> <td>1, -12</td> <td>$y = 7(0)$</td> </tr> </tbody> </table> <p>Vertex: $(\frac{1}{2})$</p>	Sum		-12	-6 + 2 = -4	-6, 2	6 + -2 = 4	6, -2	if $x = -3$, $y = (-3+3)(-3-4)$	-3, 4	$y = 0(-7)$	(3, -4)	$y = 0$	-1, 12	$x = 4$, $y = (4+3)(4-4)$	1, -12	$y = 7(0)$	<p>Fill in this:</p> <p>Factored form on the equation:</p> $(x+3)(x-4)$ $0 = (x+3)(x-4)$ $x = -3, 4 \rightarrow (-3, 0), (4, 0)$ <p>Graph of the equation:</p>
Sum																	
-12	-6 + 2 = -4																
-6, 2	6 + -2 = 4																
6, -2	if $x = -3$, $y = (-3+3)(-3-4)$																
-3, 4	$y = 0(-7)$																
(3, -4)	$y = 0$																
-1, 12	$x = 4$, $y = (4+3)(4-4)$																
1, -12	$y = 7(0)$																

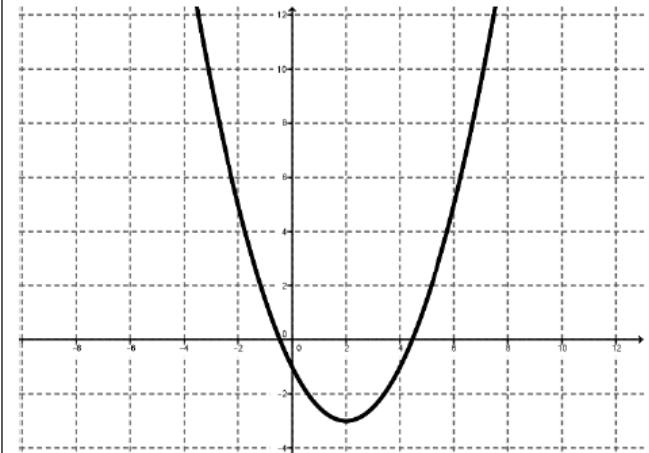
$$x = \frac{-3+4}{2} = \frac{1}{2}$$

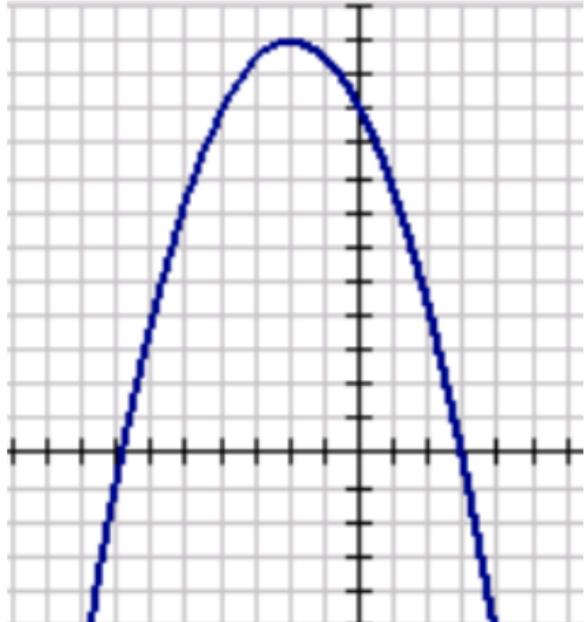
$$y = (\frac{1}{2} + 3)(\frac{1}{2} - 4)$$

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

$$y = -\frac{49}{4} = -12\frac{1}{4}$$

2. You get this:	Fill in this: Vertex form of the equation:
$y = x^2 - 6x + 3$	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: Either form of the equation other than standard form.
$y = -x^2 - 6x + 16$	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: Either form of the equation other than standard form.
$y = -2x^2 + 14x + 60$	Vertex of the parabola
	x-intercepts and y-intercept

Homework

Finish 2.9 "Ready, Set, Go"