

# Day 3

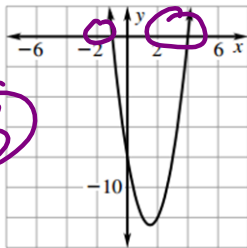
**Warm Up - week 7**

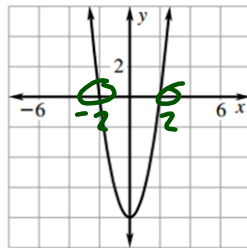
## Worksheet on Table

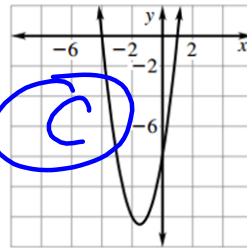
- \*Find the x-intercepts (Show work)
- \*Match the graphs to the function

**Match the function with its graph.**

A.  $y = (2x + 4)(x - 2)$       B.  $y = (x - 4)(2x + 2)$       C.  $y = (2x - 2)(x + 4)$

25. 

26. 

27. 

**Handwritten Solutions:**

For 25:  $0 = (2x + 4)(x - 2)$   
 $2x + 4 = 0 \Rightarrow 2x = -4 \Rightarrow x = -2$   
 $x - 2 = 0 \Rightarrow x = 2$

For 26:  $x - 4 = 0 \Rightarrow x = 4$   
 $2x + 2 = 0 \Rightarrow 2x = -2 \Rightarrow x = -1$

For 27:  $2x - 2 = 0 \Rightarrow 2x = 2 \Rightarrow x = 1$   
 $x + 4 = 0 \Rightarrow x = -4$

**The Unit Organizer** (4) BIGGER PICTURE      DATE \_\_\_\_\_ Mo/Date/Year

Algebra 1.5

2	LAST UNIT/Experience Quadratic Equations	1	CURRENT UNIT <b>Polynomials &amp; Factoring</b>	3	NEXT UNIT/Experience Rational Equations
8	Student Activities or Assignments	5	UNIT MAP		

**UNIT MAP:** Factoring, solving, & performing operations on polynomials

- including Adding & Subtracting Polynomials
- including Solving Polynomials by Factoring
- Such as Multiplying Polynomials
- by Factoring trinomials

*Handwritten notes:*  $x = int.$ ,  $= 0$ ,  $x^2 + bx + c$ ,  $b^2 - 4ac$ ,  $4xy \pm$ ,  $perfect sq.$ ,  $no (prim)$

7	UNIT SELF-TEST QUESTIONS	1. When adding & subtracting polynomials, how do you combine like terms?	6	RELATIONSHIPS
		2. How do you use distributive property, FOIL, and diagrams to multiply polynomials?		Factor
		3. What is the method for factoring trinomials?		Solve
		4. How is factoring & the Zero-Product Property used to solve polynomials?		Calculate
				Simplify

## Homework Questions?

$$42) \quad x^2 - 7x - 144$$

$$b^2 - 4ac$$

$$(-7)^2 - 4(1)(-144)$$

$$= 625$$

$$\sqrt{625} = 25 \checkmark$$

$$(x-16)(x+9)$$

$$\begin{array}{r} -144 \\ +16 \quad -9 \\ \hline -7 \end{array}$$

## 10.4-10.5 Quiz

#4-6 show work to find the x-intercepts  
then match the graphs

When Done... Check your work!

- Turn into basket
- Find something QUIET to work on
  - > Missing Work
  - > EC sheet (on table)

Do on  
Separate  
Sheet!

**Start on HW:** (will need to leave at least 3  
spaces between problems) **"9.8" wkst #17-28**

**Example 4: Solving a Quadratic Equation**

$$x^2 - 6x = 72$$

$$-72 \quad -72$$

$$x^2 - 6x - 72 = 0$$

$$(x+6)(x-12) = 0$$

$$x+6=0$$

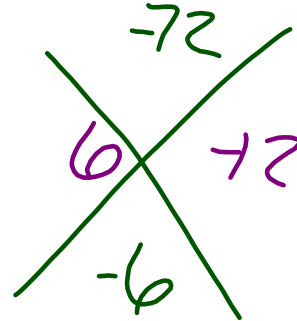
$$-6 \quad -6$$

$$x = -6$$

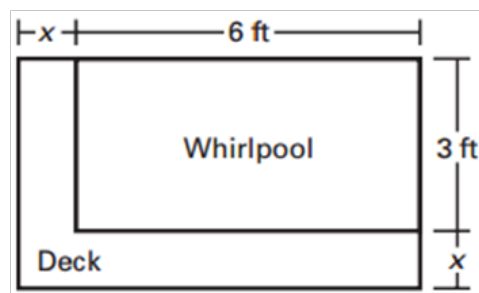
$$x-12=0$$

$$+12 \quad +12$$

$$x = 12$$

**Example 5: Writing a Quadratic Model**

You are putting a deck on two sides of a whirlpool that measures 6 feet by 3 feet. You have 10 square feet of wood to make the deck. How wide should the deck be?



**Try It**

1)  $x^2 + x - 42 = 0$

$(x-6)(x+7) = 0$

$x-6=0$        $x+7=0$

$x=6$        $x=-7$

$-42$

$-6$        $7$

$1$

$1, 42$   
 $2, 21$   
 $3, 14$   
 $6, 7$

2)  $x^2 - 17x - 18 = 20$

$-20$        $-20$

$x^2 - 17x - 38 = 0$

$(x+2)(x-19) = 0$

$x+2=0$        $x-19=0$

$x=-2$        $x=19$

$-38$

$2$        $-19$

$-17$

## 10.5 Day 3 Homework

"9.8" wkst #17-28

(show work on separate sheet)