

Happy Friday!! Three-Day Weekend Coming Soon :)

No Folders today

Do Now:

Number Talk (we'll talk about it)

$$3 \cdot 5 \cdot 6$$

$$15 \times 6 = 90?$$

$$5 \cdot 6 = 30$$

$$6 \cdot 1 = 6$$

$$6 + 3 = 9$$

$$90$$

$$15 \cdot 2 = 30$$

$$3 \cdot 30 = 90$$

$$15 \cdot 6$$

$$60 + 30$$

$$90$$

$$3(5 \cdot 6) = 90$$

$$9 \begin{array}{r} 12 \\ 30 \\ 3 \\ \hline 90 \end{array}$$

$$\begin{array}{r} 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ 15 \\ \hline 90 \end{array}$$

Oct 7-9:49 AM

## Upcoming Stuff You Need to Know

- Three day weekend!
- Tues/Wed some review
- Thurs Optional Reassessment (anything you want)
- Friday Mandatory Reassessment (must reassess factoring and solving polynomials)
- Friday ends the Quarter!!
- Then going into graphing functions

Oct 7-9:51 AM

Also...I'm going to start checking homework again.  
We will take more class time to ask questions about homework.

Oct 7-9:55 AM

Let's add/subtract!

$$4 + (-3) = 1$$

$$5 - 7 = -2$$

$$-10 + 6 = -4$$

$$7 - (-3) = 10$$

$$9 - 3 = 6$$

$$-10 + -8 = -18$$

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2, -3, -6, 5, 10 Number Sense

10, -8, -7, 5 When multiplying...

What gives a positive product?

pos \* pos  
neg \* neg  
even # negs

What gives a negative product?

neg \* pos  
pos \* neg

What gives zero as a product?

Anything \* 0

Oct 7-9:53 AM

Number Sense

121  
Perfect Squares

64 25 144  
4 49 16  
9 36 100  
169

81

1

2197 ← (13<sup>3</sup>)  
Perfect Cubes

8 27 125  
64 625  
729 216 1

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Now let's use that to factor:

$$x^2 + 8x + 12$$
$$(x+6)(x+2)$$

Two numbers  
that multiply to  
12 that also  
add to 8

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Now let's use that to factor:

$$x^2 - 3x - 10$$
$$(x-5)(x+2)$$

Two numbers  
that multiply to  
-10 that also  
add to -3

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Now let's use that to factor:

$$4x^2 + 22x + 10$$

$$2(2x^2 + 11x + 5)$$

$$2(2x^2 + 10x + x + 5)$$

$$2(2x(x+5) + 1(x+5))$$

$$2(x+5)(2x+1)$$

Two numbers  
that multiply to  
10 that also  
add to 11

Oct 7-9:56 AM

What about those perfect squares?

$$x^2 - 100$$

*If this is  
subtraction, then  
you're fine!*

$$(x-10)(x+10)$$

Oct 7-10:05 AM

What about those perfect squares?

$$x^2 + 100$$

If this is addition,  
then NOT  
FACTORABLE!

~~$$(x+10)(x+10)$$

$$x^2 + 10x + 10x + 100$$

$$x^2 + 20x + 100$$~~

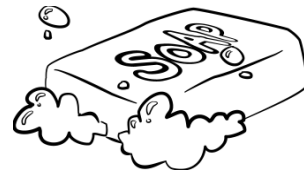
Oct 7-10:05 AM

But...Perfect Cubes you can factor with  
addition or subtraction as long as your clean.

~~$$x^3 - 125$$

$$(x-5)(x^2+5x+25)$$~~

$$x^3 + 125$$



$$(x+5)(x^2-5x+25)$$

Yes, even  
Yasir can do  
SOAP now.

Oct 7-10:08 AM

## Homework: Factoring Practice Worksheet

Exit "Slip": What do you always look for first when factoring?

Oct 7-10:12 AM