Warm-Up

1. Find the GCF of the following terms and expressions
   a. 9 and 21 b. $9x^2y$ and $36x^3y^2$

2. Solve: $7(2x - 3)$

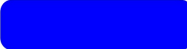**3. Simplify: $9(3 + 4x) + 2(4x + 5) =$**

4. Solve for x: $8x + 4 = 44$

5. Simplify: $3x^2 + 4x + 5x^2 - 3x =$

Key Vocabulary: Create your own definition for each of the terms based on the examples below.

-<u>Monomial</u>: 7, -9, 2xy, x^2

████████ $(5 + x)$, $(4x + 8y)$, $(5x^2 + 5y)$

████████ $(x^2 + 7x + 9)$, $(6x^5 + 5x^3 - 8x)$

████████ $(9x^5 + 5x^3 - 6x^2 + 7x - 8)$

- Find the **GCF** of each polynomial below:

1) $5x - 30$	2) $6a^2b + 3b^2$	3) $9x^3y - 21x^2y$

When factoring always factor out the GCF first!

What method do you use to factor polynomials?

Factoring a Trinomial

1. $x^2 + 10x + 16$

2. $x^2 + 8x + 12$

3. $x^2 - 17x + 30$

Factoring a Polynomial using the Difference of Squares

1. $x^2 - 64$

2. $16x^2 - 36$

3. $9x^2 - 64$

Factor Practice Side 1

Factor by Grouping!

1. Group the first and second term. Group the third and fourth term (include the sign!!)

2. Factor out the GCF for each group.

3. Group your GCFs and multiply them by what is left over.

$$3n^3 - 12n^2 + 2n - 8$$

Factor by Grouping!

1. Group the first and second term. Group the third and fourth term (include the sign!!)

2. Factor out the GCF for each group.

3. Group your GCFs and multiply them by what is left over.

$$8t^3 + 14t^2 + 20t + 35$$

Factor by Grouping!

1. Group the first and second term. Group the third and fourth term (include the sign!!)

2. Factor out the GCF for each group.

3. Group your GCFs and multiply them by what is left over.

$$20r^3 + 8r^2 + 15r + 6$$

Take out your phones

Go to Kahoot.it

Type in the pin on the board:

https://play.kahoot.it/#/lobby?quizId=5d3b83 1a-85a4-4468-b165-81568c50b8ae