I can rewrite polynomials by factoring. I can factor using greatest common factors.

Recall,

• factor:

What are the factors of 12?

Why are those factors? How do we know they are factors?

So when we are **factoring** polynomials, we are trying to find the _____

Consider $5x + 10$. Factor $5x + 10$.

Consider $x^2 + 6x + 8$. Factor $x^2 + 6x + 8$.

We are going to explore algebraic ways to factor rather than depending on the algebra tiles.

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Strategy 1: Factor by removing the GCF

Think about the following with algebra tiles:

$2x - 6$	$x^2 + 3x$

*** To find the greatest common factor,** find the _____

_____ AND _____.

For example, find the greatest common factor of $12x^4$ and $8x^2$.

*** To factor by removing the GCF**,

1)

2)

3)

Check:

For example, factor $12x^4 + 8x^2$.

I can rewrite polynomials by factoring. I can factor using greatest common factors.

Independent Practice: Factor by removing the GCF.

1. $5x - 35$

2. $8a^3 + 16a^2$

3. $24y^2 + 8y$

4. $36 - 20x$

5. $2m - 5m^4$

6. $3x^2 - 9x + 3$

7. $12x^3 + 8x^2 - 6x$

8. $33d^3 + 22d - 11$