

NAME _____

DATE _____

Module 12 Simplifying Algebraic Expressions
by Factoring Polynomials

Lesson 1 Factoring by Removing the Greatest
Common Factor



**guided
notes**

Lesson Objectives

- Identify the GCF of a polynomial.
- Factor polynomials by removing the GCF.

Factoring a polynomial is rewriting the polynomial as a
_____ of simpler expressions.

The Distributive Property states that

$$a(b + c) = \underline{\hspace{2cm}}$$

It can also be written as $ab + ac = \underline{\hspace{2cm}}$.

When factoring a polynomial, the first thing to be done is to factor out the
greatest common monomial factor.

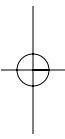
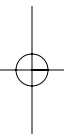
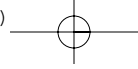
The greatest common monomial factor is the common factor that has
the largest _____ factor and the highest
_____ in each variable.

1 Factor: $6x + 12$

2 Factor: $5x^4 - 15x^2 - 10$

3 Factor, if possible: $a^3 - b^2$

4 Factor: $8x^2y^2 - 12x^4y^3$



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