## Factoring: GCF

## Definition: A

$\qquad$ is a number, variable, monomial, or polynomial
which is multiplied by another number, variable, monomial, or polynomial to obtain a product.

List all the possible factors of the following numbers:
A. 12
B. 32
C. 19
D. 45

Finding the GCF with terms that include variables
Step 1: Find the GCF of the $\qquad$ .

Step 2: Find the GCF of the $\qquad$ .

Step 3: Rewrite the GCF as a product of the GCF of the coefficients times the GCF of the variables.

Example 1: What is the GCF of $x^{4}$ and $x^{7}$

Example 2: What is the GCF of $24 x^{3}$ and $9 x$

Example 3: What is the GCF of $14 x^{2} y^{4}$ and $21 x y^{2}$

## To Factor a Polynomial

Ex. 4: $\quad 5 x^{2}+7 x$
Ex. $5 \quad 2 x^{3}-6 x^{2}$
Ex. 6 5ab+6a
Ex. $7-12 x^{5}+4 x^{3}-8 x^{2}$

