## Notes: Section 3.3-Common Factors of a Polynomial

In this section we will learn to Factor Polynomials
When factoring, we usually will want to factor COMPLETELY
$4 x+12$

Factoring and Expanding are Inverse Processes
So we can check our factoring by expanding:

Example \#1: Factor $12 \mathrm{a}+15$

Example \#2: $4 \mathrm{c}+16 \mathrm{c}^{2}$ Factor completely

Example \#3: $\quad 4 a^{4} b c^{2}-18 a^{2} b^{3} c^{3}$

Example \#4: Factoring a trinomial
$7-28 y-14 y^{2}$

Example \#5
$-8 x^{3}-20 x y^{2}-12 x^{2} y^{2}$

