$x^2 + 5x + 6$

standard form

2. $x^3 - 5x$

Factor Out the (GCF) Greatest Common Factor

Steps:

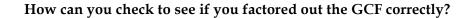
- 1) Find the GCF, if possible
 - *a.* Find the greatest integer that all the terms have in common.
 - b. Do all terms have a variable? If so, find the variable with the smallest exponent.
- 2) Divide each term by the GCF. Don't forget the quotient rule for exponents!
- 3) *Rewrite the polynomial as a product of the GCF and the remaining terms.*

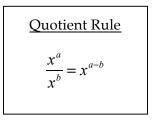
Factor out the GCF, if possible.

1. 4x + 12

3. $3x^2 - 9x - 3$ 4. $5x^2 - 10x + 5$

5.
$$2x - 11$$
 6. $-7x^3 - 14x^2$





<u>Factor Trinomials of the Form $x^2 + bx + c$ </u>

Steps:

- 1) List the factor pairs of $a \cdot c$.
- 2) Find the factor pair whose sum equals **b**.
- 3) Rewrite the trinomial as the product of two binomials, $(x + 1^{st} factor)(x + 2^{nd} factor)$.

Factor each polynomial.

1. $x^2 + 7x + 6$ 2. $x^2 + 5x + 4$

3. $x^2 - 6x + 9$ 4. $x^2 + 5x - 6$

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

6. $x^2 - 3x - 18$