## Factoring Strategies

1. Always factor out the GCF, if possible
2. Once you factor the GCF out count the number of terms in the other factors. If there are:
   1. Two Terms: Is it degree 2 or 3?
      1. If degree two: Is it a difference of squares? If it is the sum of squares it is prime and cannot factor.
      2. If degree three: Try factoring as a sum or difference of cubes
   2. Three Terms:
      1. Try factoring as a perfect square trinomial
      2. Try trial and error method
      3. Try reversing Foil method
      4. Try the factor by grouping method
   3. Four or more terms:
      1. Try factor by grouping
      2. Try to factor out a common binomial factor
      3. Try grouping into a difference of squares, one of which is a trinomial
3. Always FACTOR COMPLETELY. IF a factor with more than one term can itself be factored further, do so.
4. Check your answer by multiplying the factorization

Ex: