








## Quick Check for Factoring Polynomials

	Number	Of	Terms
CHECK FOR	Two	Three	Four or More
Greatest Common Factor			
Grouping by Pairs			
Difference of Squares $a^2 - b^2 = (a + b)(a - b)$			
Perfect Square Trinomial $a^2 + 2ab + b^2 = (a + b)^2$ $a^2 - 2ab + b^2 = (a - b)^2$			
Grouping method (Product/Sum method) or Reverse FOIL			

### Points to Remember:

1. Always look for a GCF first, no matter how many terms are in the polynomial.
2. A sum of squares is prime (unless there is a GCF).
3. You can only ‘insert’ the pair of numbers (found when using grouping to factor a trinomial), if the leading coefficient is a 1.
4. Always write a trinomial in descending order (if there is one variable) before trying to factor using grouping or reversing FOIL.