Quick Check for Factoring Polynomials

	Number	Of	Terms
CHECK FOR	Two	Three	Four or More
Greatest Common Factor	✔	✔	✔
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 or Reverse FOIL		✔	

Points to Remember:
1. <u>Always</u> 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.