

GCF	Look for what each term has in common with the other terms.	Only has two terms and they must be perfect squares. They must be being subtracted.	Perfect Squares
<p><b>gcf (leftovers)</b></p> <p>Parenthesis: <b>one set of ( )</b></p> <p>Signs: <b>Keep same signs</b></p> <p>example: <math>\frac{3mn^2}{3mn^2} - \frac{6m^2n^3}{3mn^2} + \frac{12m^3n^4}{3mn^2}</math></p> <p><math>3mn^2(1 - 2mn + 4m^2n^2)</math></p>		<p><b>DOTS/DOPS</b></p> <p>Parenthesis: <b>( - )( + )</b></p> <p>Signs: <b>Always Different</b></p> <p>examples: <math>25x^2 - 16</math>  <math>(5x - 4)(5x + 4)</math>  <math>100 - n^6</math>  <math>(10 - n^3)(10 + n^3)</math></p> <p><b><math>n^3 \cdot n^3</math></b></p>	
Factoring			
Trinomial	A trinomial that only has a 1 before the squared term.	A trinomial that has a number larger than 1 before the squared term.	Trial & Error
<p>Parenthesis: <b>( ) ( )</b></p> <p>Signs: <b>- Keep first</b> <b>- Mult. for Second</b></p> <p>examples: <math>a^2 - 2a - 15</math>  <math>(a - 5)(a + 3)</math>  <math>m^2 - 6m + 8</math>  <math>(m - 2)(m - 4)</math></p>		<p>Parenthesis: <b>( ) ( )</b></p> <p>Signs: <b>Trial and Error!</b></p> <p>example: <math>2y^2 + y - 6</math>  <math>(2y - 3)(y + 2)</math></p>	

$$\begin{array}{r} 15 \\ 1 \overline{) 15} \\ \underline{3 \phantom{0}} \\ 3 \phantom{0} \\ \underline{3 \phantom{0}} \\ 0 \end{array}$$

$$\begin{array}{r} 8 \\ 1 \overline{) 8} \\ \underline{2 \phantom{0}} \\ 2 \phantom{0} \\ \underline{2 \phantom{0}} \\ 0 \end{array}$$

$$\begin{array}{r} 6 \\ 1 \overline{) 6} \\ \underline{2 \phantom{0}} \\ 2 \phantom{0} \\ \underline{2 \phantom{0}} \\ 0 \end{array}$$

NOTE\* Always check your work by distributing or the FOIL method!!!