

Main Ideas/Questions	Notes/Examples	
<p><b>WARM UP</b></p>	<p><b>Directions:</b> Simplify the following polynomials.</p>	
	<p>♦ <math>(x-6)(x+6) = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}</math></p> <p>♦ <math>(k-11)(k-11) = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}</math></p> <p>♦ <math>(3d+7)(3d+7) = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}</math></p>	<div style="border: 1px solid black; border-radius: 10px; padding: 5px; width: fit-content; margin-bottom: 10px;">Difference of Squares</div> <div style="border: 1px solid black; border-radius: 10px; padding: 5px; width: fit-content; margin-left: auto;">Perfect Square Trinomials</div>
<p><b>Steps to Factor a Perfect Square Trinomial</b></p>	1.	<p>Make sure you have a perfect square trinomial! You can take the square root of the first and last terms. The middle term is twice the product of the square root of the first and last terms.</p>
	2.	<p>Use the following rules to factor:</p> $a^2 + 2ab + b^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ $a^2 - 2ab + b^2 = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$
	3.	<p>Check your work by distributing!</p>
<p><b>EXAMPLES</b></p>	<p><b>Directions:</b> Factor each perfect square trinomial. Check your work by distributing. If a polynomial cannot be factored, write "prime".</p>	
	1. $x^2 + 10x + 25$	2. $s^2 - 8s + 16$
	3. $p^2 + 8p + 64$	4. $n^2 - 16n + 64$
	5. $m^2 + 24m + 144$	6. $169 - 26r + r^2$
	7. $9g^2 + 12g + 4$	8. $7x^2 - 9x + 2$
	9. $16t^2 + 48t + 36$	10. $4z^2 - 36z + 81$
	11. $2u^2 + 12u + 18$	12. $16d^2 - 40de + 25e^2$