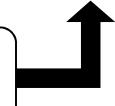


Name:

Date:

Topic:

Class:

Main Ideas/Questions	Notes/Examples					
WARM-UP	<p>Directions: Simplify the following polynomials.</p> <ul style="list-style-type: none"> • $(x+1)(x+5) = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ • $(m-4)(m+6) = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ • $(k-7)(k-3) = \underline{\hspace{2cm}} = \underline{\hspace{2cm}}$ <div style="border: 1px solid black; padding: 5px; width: fit-content; margin-left: auto; margin-right: 0;"> Trinomials like these can be factored back into a product of binomials! </div> 					
FACTORING TRINOMIALS of the form  $x^2 + bx + c$	<p>To factor a trinomial of the form $x^2 + bx + c$, you must find two integers that $\underline{\hspace{2cm}}$ and $\underline{\hspace{2cm}}$.</p> <p>Guided Example: $x^2 + 7x + 12$</p> <p>What two integers have a product of 12 and a sum of 7? $\underline{\hspace{2cm}}$</p> <p>Write two binomials using these integers, then distribute to check.</p>					
SET 1	<p>Directions: Factor each trinomial.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 5px;">1. $n^2 + 9n + 20$</td> <td style="padding: 5px;">2. $w^2 + 9w + 18$</td> </tr> <tr> <td style="padding: 5px;">3. $a^2 + 10a + 24$</td> <td style="padding: 5px;">4. $y^2 + 2y + 1$</td> </tr> </table>		1. $n^2 + 9n + 20$	2. $w^2 + 9w + 18$	3. $a^2 + 10a + 24$	4. $y^2 + 2y + 1$
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3. $a^2 + 10a + 24$	4. $y^2 + 2y + 1$					
SET 2	<p>5. $n^2 + 3n - 18$</p> <p>7. $g^2 + g - 6$</p>	<p>6. $x^2 + 2x - 8$</p> <p>8. $c^2 + 4c - 45$</p>				

SET 3	9. $a^2 - 2a - 3$	10. $x^2 - 7x - 30$
	11. $b^2 - 2b - 63$	12. $k^2 - 12k - 64$
SET 4	13. $x^2 - 11x + 24$	14. $x^2 - 14x + 49$
	15. $y^2 - 17y + 72$	16. $m^2 - 15m + 50$
MIXED PRACTICE	17. $a^2 + 6a - 16$	18. $x^2 - 14x - 72$
	19. $y^2 + 13y + 40$	20. $w^2 - 16w + 48$
	21. $n^2 - n - 30$	22. $k^2 + 13k + 42$
EXAMPLES WITH A GCF	Directions: Look for a GCF first, then factor the remaining trinomial.	
	23. $4k^2 + 12k + 8$	24. $2x^2 - 8x - 24$
	25. $3y^2 - 15y + 12$	26. $3a^3 + 30a^2 + 63a$
	27. $2b^2 + 10b + 12$	28. $5x^2y - 15xy - 140y$