Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples	
WARM-UP	**Directions:** Simplify the following polynomials.	
	• $(x+1)(x+5)$ = _____ = _____ • $(m-4)(m+6)$ = _____ = _____ • $(k-7)(k-3)$ = _____ = _____ **Trinomials like these can be factored back into a product of binomials!**	
FACTORING TRINOMIALS of the form $x^2 + bx + c$	**To factor a trinomial of the form $x^2 + bx + c$, you must find two integers that _____ and _____.**	
	Guided Example: $x^2 + 7x + 12$ What two integers have a product of 12 and a sum of 7? _____ Write two binomials using these integers, then distribute to check.	
SET 1	**Directions:** Factor each trinomial.	
	1. $n^2 + 9n + 20$	**2.** $w^2 + 9w + 18$
	3. $a^2 + 10a + 24$	**4.** $y^2 + 2y + 1$
SET 2	**5.** $n^2 + 3n - 18$	**6.** $x^2 + 2x - 8$
	7. $g^2 + g - 6$	**8.** $c^2 + 4c - 45$

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.** $5x^2y - 15xy - 140y$