Name:	Date:
Topic:	Class:

Main Ideas/Questions	Notes/Examples	
ADDING & SUBTRACTING *Polynomials*	❶ **COMBINE LIKE TERMS!** (Watch out for subtraction problems!)	
	❷ Write your answer in **STANDARD FORM.**	
	1. $(3x^2+11x+4)+(-5x+x^2-13)$	**2.** $(9n^3-4n^2+2n-10)+(-2n^2+n+7)$
	3. $(5k^3-2k^2+2k)-(2k^2+2k+17)$	**4.** $(y+4y^2-3)-(1+2y^2-5y-y^3)$
	5. Subtract $(-10ab+7a^2-b^2)$ from $(8b^2+ab-2a^2)$.	
MULTIPLYING *Polynomials*	❶ **DISTRIBUTE** to expand and remove parentheses.	
	❷ **COMBINE LIKE TERMS!**	
	❸ Write your answer in **STANDARD FORM.**	
	6. $(w-7)(w^2+2w+1)$	**7.** $(2x+1)(4-9x)-2x(3x+11)$
	8. $-3(a+5)(a-2)(a+8)$	**9.** $(2c+5d)^3$

10. $(3m^2 - 4m + 1)(2m^2 + 5m - 9)$

11. $(x^2 + 6x - 7)(-x^2 - 9x - 4)$

12. The height of a trapezoid can be expressed as $(2x + 9)$ while the bases can be expressed as $(3x - 7)$ and $(x + 5)$. Write an expression to represent the area of the trapezoid.

DIVIDING

Polynomials (by a Monomial)

❶ **DIVIDE** each term in the numerator by the monomial in the denominator.

❷ Write your answer in **STANDARD FORM.** Rewrite all terms with negative exponents.

13. $\dfrac{9m^3 - 24m^2}{3m}$

14. $\dfrac{20x^3 - 4x^2 - 8x}{4x}$

15. $(14a^4b^3 - 20a^2b^2 + 2ab) \cdot (2ab)^{-1}$

16. $\dfrac{30c^8d^3 - 36c^6d^2 + 6c^3d}{12c^2d}$

17. $\dfrac{30x^3 - 12x^2 + 9x}{3x^2}$

18. $\dfrac{40m^3n^4 - 24m^2n^7}{8m^2n^5}$