

Name:

Date:

Topic:

Class:

Main Ideas/Questions	Notes/Examples	
POLYNOMIALS	<ul style="list-style-type: none">• Definition: An algebraic expression that consists of _____• Example: _____• Standard Form: Terms should be written so that the _____ go in _____ from left to right.	
Writing POLYNOMIALS	Directions: Write each polynomial in standard form.	
	1. $7 - 2x$	2. $-8n + n^2 + 14$
	3. $25 - 2a + 10a^2$	4. $8w^2 - 2w + 7w^4$
	5. $p - 2p^2 + 1 - 4p^3$	6. $-27 + 4y^2 - y^3 - 10y$
Adding POLYNOMIALS	Polynomials can be added by simply combining like terms. Make sure final answers are written in standard form.	
	7. $(7x + 15) + (4x - 9)$	8. $(-3a + 16) + (2a - 27)$
	9. $(-4 - 2k) + (7k + 23)$	10. $(-15m - 37) + (-1 + 8m)$
	11. $(7c^2 + 2c) + (6c^2 - 8c)$	12. $(3x - 8x^2) + (2x^2 - 3x)$
	13. $(8 - 5x + 6x^2) + (5x^2 - 8x - 7)$	14. $(5r^2 + 7r - 6) + (8r + 3r^2 - 1)$

	15. $(y^2 - 18 - y) + (10 + 4y - 5y^2)$	16. $(11 - 8p - 8p^2) + (p - 3p^2 - 25)$
SUBTRACTING POLYNOMIALS	Polynomials can also be subtracted by simply combining like terms. **However, make sure to distribute the negative first!**	
	17. $(7x + 2) - (5x + 3)$	18. $(3x - 11) - (11x - 6)$
	19. $(8 - 4m) - (4m + 6)$	20. $(1 - 7p) - (18 - 7p)$
	21. $(8w^2 - 7w) - (3w - 2w^2)$	22. $(2r^3 + 8) - (1 + 6r^3)$
	23. $(7x^2 - 6x + 5) - (5x^2 + 3x - 17)$	24. $(3v + v^2 - 4) - (8 + 4v^2 + 2v)$
	25. $(3a^2 - 4 - 3a) - (5a + 5a^2 - 7)$	26. $(-5 - 6y - 3y^2) - (5y - 4y^2 - 2)$
MIXED PRACTICE	Directions: Find each sum/difference. Write all answers in standard form.	
	27. $(2 - 4k) + (k + 39)$	28. $(5m - 8) - (8 - m)$
	29. $(-1 + 13p^2) - (3p^2 + 14)$	30. $(8v^2 + 2v) + (-11v^2 - 2v)$
	31. $(5x^2 + 14x - 15) - (3x^2 + 5x + 7)$	32. $(n + 1 - 5n^2) + (4n^2 - 4n + 6)$
	33. $(6a^2 - 5 - 4a) + (3a + 7 + 3a^2)$	34. $(2 - 3c^2 + 8c) - (5c - 8c^2 + 1)$

Name: _____

Unit 2: Algebraic Expressions



Date: _____ Per: _____

Homework 11: Adding & Subtracting Polynomials

Directions: Write each polynomial in standard form.		
1. $-14 + 9x$	2. $7w^2 + 25 - 2w$	3. $-1 - 4a^2 + 17a$
4. $3p + 2p^3 - 16p^2$	5. $-6 + 8m^2 - 4m + 9m^3$	6. $k - 17 - 2k^3 + 14k^2$

Directions: Find each sum/difference. Write all answers in standard form.	
7. $(3a + 6) + (6a + 7)$	8. $(4n - 6) - (3n + 2)$
9. $(4x + 7) - (8 - 3x)$	10. $(9c - 2) + (1 - c)$
11. $(x^2 + 7x - 6) + (x^2 + 6x + 3)$	12. $(v^2 + 7v - 5) - (6v^2 + 4v - 5)$
13. $(4c^2 - 8c + 1) + (1 - 8c - 2c^2)$	14. $(4k^2 + 5 - 4k) - (9k - 2 - 5k^2)$
15. $(7m^2 - 3 + m) - (2m + 3 + 10m^2)$	16. $(r^2 - r + 1) + (-3 + 2r + 6r^2)$
17. Find the sum of $3 - a - 5a^2$ and $a - 7a^2 - 3$.	18. Find the difference of $5k^2 - 7k + 6$ and $3k - 4k^2 + 1$.
19. Subtract $8v - 3v^2 + 6$ from $7 - 6v + 5v^2$.	20. What is $8x + 11$ less than the product of -2 and $x - 7$.