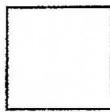


Name: _____

Unit 7: Polynomials & Factoring

Date: _____ Bell: _____

**Homework 1: Classifying Polynomials;
Adding & Subtracting Polynomials****Directions:** Classify the following polynomials by degree and number of terms.

1. $3x + 12$	2. $-7x^2 + 4x - 1$
3. $x^3 - 8$	4. 24
5. $2x^4 - x^3 + 5x^2 + x - 7$	6. $10x$

Directions: Write the following polynomials in standard form.

7. $y^2 + 3y^4 - 7y + 2y^3 - 4$	8. $9x^4 - 2x^2 + 7x - 8x^3 + x^5 - 4$
9. $-2b^2 + 5ab + 7a^2$	10. $-3m^2n^2 + 8mn^3 + m^3n$

Directions: Find the sum/difference. Answers must be in standard form.

11. $(x^2 - 4x + 3) + (3x^2 - 3x - 5)$	12. $(8x^2 - 12x + 4) - (3x^2 + 5x - 1)$
13. $(2x - 3 + 7x^2) - (3 - 9x^2 - 2x)$	14. $(7x^2 + 3x) - (5x^2 + 4)$
15. $(3x^2 - x + 3) + (4x^2 - 5)$	16. $(5x^3 - x + 2x^2 + 4) + (3x^2 + 1 - 4x)$
17. $(2x^2 + 3y^2 - z^2) - (x^2 - y^2 - z^2) + (4x^2 - 3y^2)$	18. $(12 + 8x^3 + 3x - 4x^2) + (5x^3 + 15 - x + 2x^2)$
19. Find the sum of $2x^2 - 6x - 2$ and $x^2 + 4x$	20. Subtract $-a^2 - 5ab + 3b^2$ from $3a^2 - 2ab + 3b^2$

Name: _____

Exponents & Exponential Functions



Date: _____

Negative Exponents

1. x^{-7}	2. $5x^2y^{-1}$	3. $-4a^{-2}b^{-2}$
4. $(ab^2)^{-4}$	5. $-8(x^{-3}y^4)^{-5}$	6. $(3x)^{-3}$
7. $(a^{-2})(a^{-3})$	8. $(x^{-3})^{-3}(-2y^5)^4$	9. $(a^2b^3)^{-2}(a^5b^4)^{-3}$
10. $(2r^4)^{-5}$	11. $(-11x^3y)^{-2}$	12. $(x^3y^6)^{-2} + (x^2y^4)^{-3}$
13. $\frac{m}{m^2}$	14. $\frac{-4x^2}{24x^5}$	15. $\frac{-21w^5x^2}{7w^4x^5}$
16. $\frac{9a^2bc^4}{15ab^3c^5}$	17. $\frac{9x^4y^3}{3x^{10}y^7}$	18. $\frac{7a^5b^6c}{14a^5b^9}$
19. $\frac{-9xy^5z^3}{36xy^4z^5}$	20. $\frac{-15r^6s^7t^4}{3r^2s^9t^7}$	21. $\frac{(4x^2y^5)^2}{(2xy^2)^3(3x^3)^2}$

Alg1R REVIEW EXPONENTS

Name: _____

1) $\frac{2z^{-2}y^7}{10yz^5}$	2) $(xy)^5(x^6y^3)^4$	3) $8^0 \cdot 2^{-4}$
4) $(-2x^{10})^5$	5) $(-6m^{-7}n^{-5}p)(4m^2n^8p^5)$	6) $\frac{x^{11}}{x^{-5}}$
7) $(3ab^4)^4(2ab)$	8) $\frac{12a^{-6}c^{-4}}{16c^{-2}bd^{-5}}$	9) $27^{\frac{2}{3}}$
10) $\left(\frac{2y^3}{3x}\right)^4$	11) $8^{\frac{5}{3}} + 144^{\frac{1}{2}}$	12) $\frac{(6x^5)(8x^4)}{x^{11}}$
13) $(uv^6w^{25}xy^{-12}z^{52})^0$	14) $(9x^4)(7x^{-7})$	15) $(y^{-3})^{-10}y^3$